- ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS.
- 2. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- 3. COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL OFFSETS FOR COORDINATED INSTALLATION WHERE REQUIRED.
- COORDINATE HVAC, PLUMBING, AND FIRE PROTECTION WORK PRIOR TO INSTALLATION. DUCTWORK AND EQUIPMENT ACCESS TAKES PRECEDENCE OVER ALL PIPING EXCEPT GRAVITY SYSTEMS FOR AVAILABLE SPACE.
- CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH ALL PLANS AND SPECIFICATIONS. IF A DISCREPANCY EXISTS BETWEEN ANY PLAN AND/OR SPECIFICATION, THE MORE STRINGENT REQUIREMENT SHALL BE FOLLOWED. CONTRACTOR IS ENCOURAGES TO SUBMIT RFI'S BEFORE BID TO CLARIFY PLAN AND SPECIFICATION INTENT.
- 6. COORDINATE EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.
- 7. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSE BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT. BEFORE SUBSTANTIAL COMPLETION, CLEAN EQUIPMENT, FIXTURES, EXPOSED DUCTS,
- 8. PROVIDE EQUIPMENT THAT FITS INTO THE SPACE ALLOTTED AND ALLOWS ADEQUATE ACCEPTABLE CLEARANCE FOR INSTALLATION, REPLACEMENT, SERVICING, AND MAINTENANCE. COORDINATE WITH OTHER TRADES TO ENSURE NO CONFLICT
- CONTRACTOR SHALL OBTAIN & PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE REQUIREMENTS.
- 10. REFER TO TYPICAL DETAILS PROVIDED IN THIS DRAWING SET FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH DETAILS.
- 11. A SHORT DASH IN A SCHEDULE TABLE CELL INDICATES THAT THE COLUMN HEADING IS NOT USED OR NOT APPLICABLE TO THAT SCHEDULED ITEM.
- 12. ALL PIPING & DUCTWORK IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE HARD LID CEILING. COORDINATE WITH ARCHITECTURAL DOCUMENTS FOR FURRING & CHASE LOCATIONS & SIZES.
- 13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70 STANDARDS AND LOCAL REQUIREMENTS.
- 14. ALL FIELD WIRING SHALL REQUIRE AN ELECTRICAL PERMIT AND SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
- 15. COORDINATE ELECTRICAL REQUIREMENTS SHOWN ON PLANS AND SPECS WITH AVAILABLE VOLTAGES AND PANEL SPACE ONSITE AS WELL AS WITH ELECTRICAL ENGINEER AND ELECTRICAL CONTRACTOR. IF DISCREPANCIES EXIST BETWEEN THESE PLANS AND AVAILABLE ONSITE ELECTRICAL UTILITIES, DO NOT PURCHASE OR INSTALL EQUIPMENT BEFORE FIRST CONTACTING MEL AND RECEIVING INSTRUCTION.
- 16. PROVIDE 4" MINIMUM CONCRETE BASES (HOUSEKEEPING PADS) UNDER FLOOR MOUNTED MECHANICAL EQUIPMENT. THIS INCLUDES, BUT IS NOT LIMITED TO AIR TO WATER HEAT PUMP, PUMPS, EXPANSION TANKS, WATER HEATERS, AND STORAGE TANKS. COMPLY WITH REQUIREMENTS FOR EQUIPMENT BASES AND FOUNDATIONS SPECIFIED IN DIVISION 03.
- 17. LOCATE VALVES, WATER HAMMER ARRESTERS, CLEANOUTS, DAMPERS, CONTROLS AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE. PROVIDE ACCESS DOORS FOR MECHANICAL EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER.
- 18. ACCESS PANELS SHALL BE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING. PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE. PROVIDE ACUDOR, ELMDOR, MILCOR, OR APPROVED.
- 19. INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF EQUIPMENT THAT REQUIRES MAINTENANCE.
- PLUMBING:
- 1. DOMESTIC WATER TUBE, PIPE, FITTINGS, JOINING MATERIALS, SPECIAL TIES, PLUMBING EQUIPMENT, PLUMBING FIXTURES PLUMBING FITTINGS AND ALL OTHER APPURTENANCES IN CONTACT WITH DRINKING WATER SHALL BE LEAD-FREE EXCEPT THOSE EXPLICITLY EXEMPTED IN SECTION 3874 OF THE SAFE WATER DRINKING ACT. LEAD-FREE SHALL MEAN (A) NOT CONTAINING MORE THAN 0.2 PERCENT LEAD WHEN USED WITH RESPECT TO SOLDER AND FLUX; AND (B) NOT MORE THAN A WEIGHTED AVERAGE OF 0.25 PERCENT LEAD WHEN USED WITH RESPECT TO WETTED SURFACES OF DOMESTIC WATER TUBE. PIPE, FITTINGS, JOINING MATERIALS, SPECIALTIES, PLUMBING EQUIPMENT, PLUMBING FIXTURES, AND PLUMBING FITTINGS.
- 2. PROVIDE 5 W/FT HEAT TRACE FOR ALL DCW, DHW, W, AND DHWC PIPING & P-TRAPS IN UNHEATED, SEMI HEATED, OR LOW SPACES.
- PROVIDE WATER HAMMER ARRESTORS IN DOMESTIC WATER PIPING IN ACCORDANCE WITH PDI-WH201.
- 4. INSULATE HOT AND COLD WATER AND HEAT TRACED SYSTEMS PER WASHINGTON STATE ENERGY CODE C403.10.3.
- CIRCULATION SYSTEM SHALL AUTOMATICALLY DISABLE PUMP WHEN THE WATER IN THE CIRCULATION LOOP TEMPERATURE REACHES THE SUPPLY TEMPERATURE AND SHALL NOT ENABLE PUMP UNTIL CIRCULATION LOOP TEMPERATURE IS A MINIMUM OF 10 dF LOWER THAN SUPPLY TEMPERATURE PER WSEC C404.7.1.
- 6. HEAT TRACE SYSTEM CONTROLS SHALL COMPLY WITH C404.7.2.
- 7. DISCHARGE TEMPERATURE OF PUBLIC LAVATORIES SHALL BE 104 DEGREES FAHRENHEIT.
- 8. VALVES, EXPANSION FITTINGS/LOOPS, AND PIPING SPECIALTIES SHALL BE FULL SIZE OF PIPE UNLESS NOTED OTHERWISE.
- REVIEW ALL PLUMBING PRIOR TO INSTALLATION FOR CROSS CONNECTION PROTECTION, RPBA REQUIRED ON ESPRESSO, SODA (CARBONATED) DISPENSERS, ICE MACHINES, AND OTHERS AS REQUIRED.

APPLICABLE CODES

AS ADOPTED BY THE CITY OF PUYALLUP, WA

INTERNATIONAL MECHANICAL CODE. IMC 2021 INTERNATIONAL BUILDING CODE, IBC 2021 WASHINGTON STATE ENERGY CODE, WSEC 2021 INTERNATIONAL FUEL GAS CODE, IFGC 2021 UNIFORM PLUMBING CODE, UPC 2021

AND ASSOCIATED WASHINGTON ADMINISTRATIVE CODE AMENDMENTS

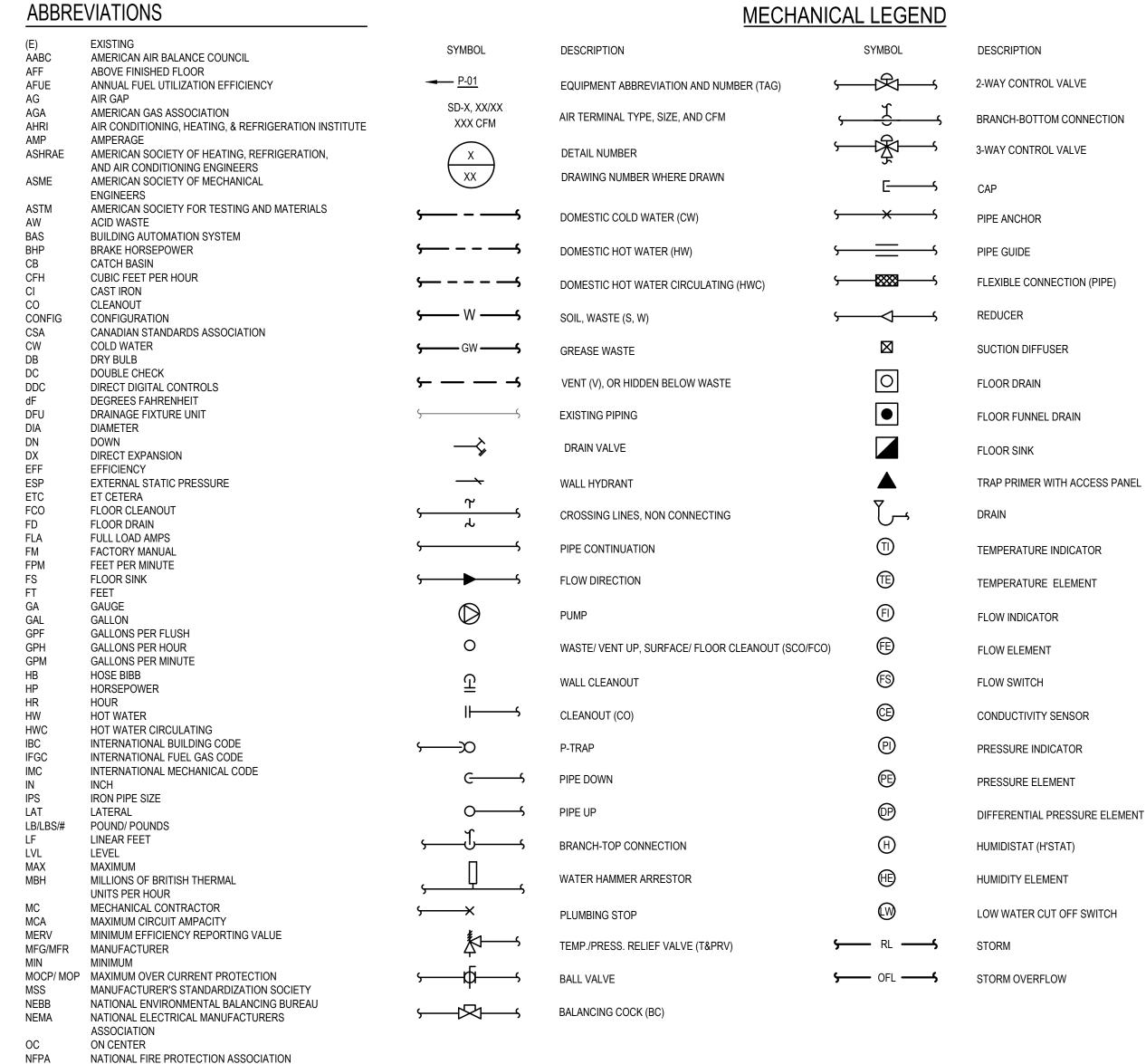
DESIGN CONDITIONS

WATER PRESSURE 60 PSI

SCOPE OF WORK

- 1. PROVIDE SUMP PUMP DESIGN AT BOTTOM OF ELEVATOR SUMP. PLEASE VERIFY DRAIN LOCATION WITH ENGINEERING LOCATION. OIL WATER SEPARATOR BY OTHERS.
- 2. PROVIDE ROOF DRAINAGE AND OVERFLOW SYSTEMS.
- 3. PROVIDE WATER HEATER PLANT SERVING ENTIRE BUILDING.
- PROVIDE HEAT TRACE FOR ALL PIPING IN AREAS EXPOSED TO AMBIENT CONDITIONS.
- 5. PROVIDE FULL DWV DESIGN FOR FIXTURES SHOWN ON PLAN, INSULATE PIPING PER PLANS.
- PROVIDE GREASE WASTE SYSTEM.

MECHANICAL LEGEND



NO

NOM

NPCW NPHW

NPHWC

NTS

PD

PSF

PSI

RP

RPM

SPEC

STM

THRD

TYP

UPC

VOLT

VRF

VTR

VAV

W/

VERT

W.C.

WCO

WSEC

WSFU

WIN

SD

PSIG PVC

NUMBER

NOMINAL

NOT TO SCALE

PUMPED DISCHARGE

POLYVINYL CHLORIDE

REDUCED PRESSURE

STORM DRAIN

SQUARE FEET

SPECIFICATION

STEAM

THREADED

VENT/ VOLT

VENT TO ROOF

WATER COLUMN

WALL CLEANOUT

VARIABLE AIR VOLUME

VOLTAGE

VERTICAL

WITH

WASTE

WINTER

TYPICAL

NON-POTABLE COLD WATER

NON-POTABLE HOT WATER

POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH

REVOLUTIONS PER MINUTE

UNDERWRITERS LABORATORY

VARIABLE REFRIGERANT FLOW

WASHINGTON STATE ENERGY CODE

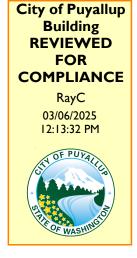
WATER SUPPLY FIXTURE UNITS

UNIFORM PLUMBING CODE

POUNDS PER SQUARE INCH, GAUGE

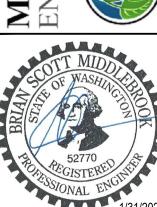
NON-POTABLE HOT WATER CIRC

Revision set; SEE orginal permit set for notes and comments.



Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION. RINT in COLOR and to SCALE.



ON ES

City of Puyallup elopment & Permitting Servi Building Planning Engineering Public Works

Traffic

Fire

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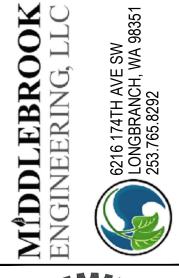
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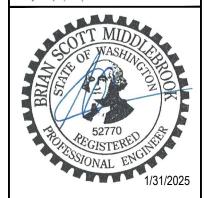
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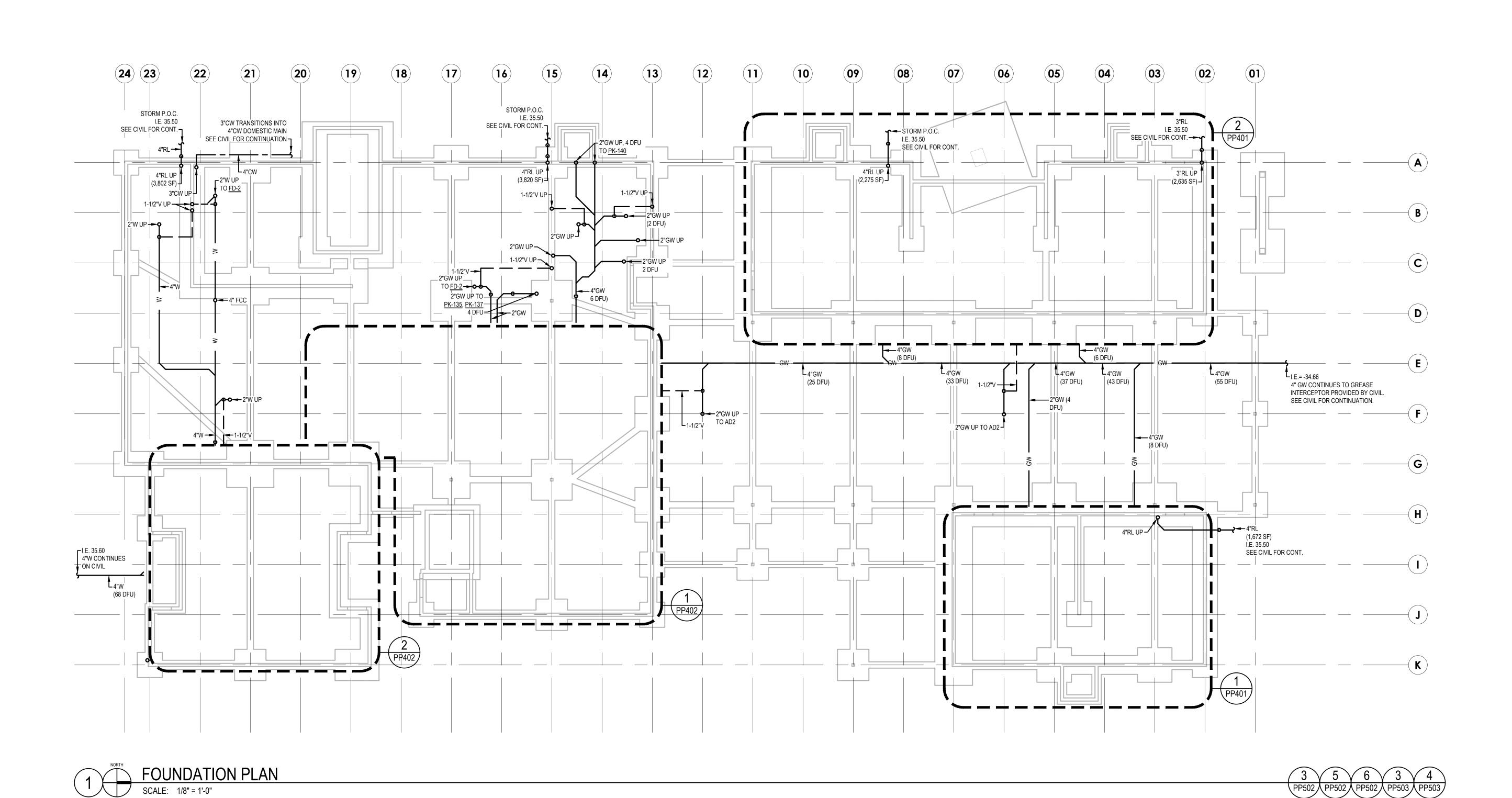
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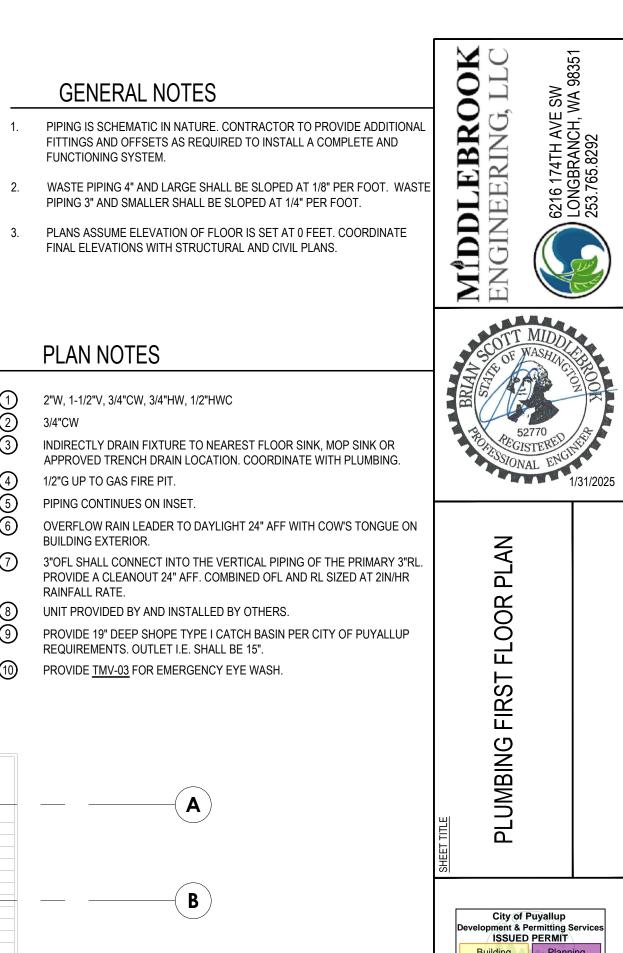
Engineering Public Works Fire Traffic

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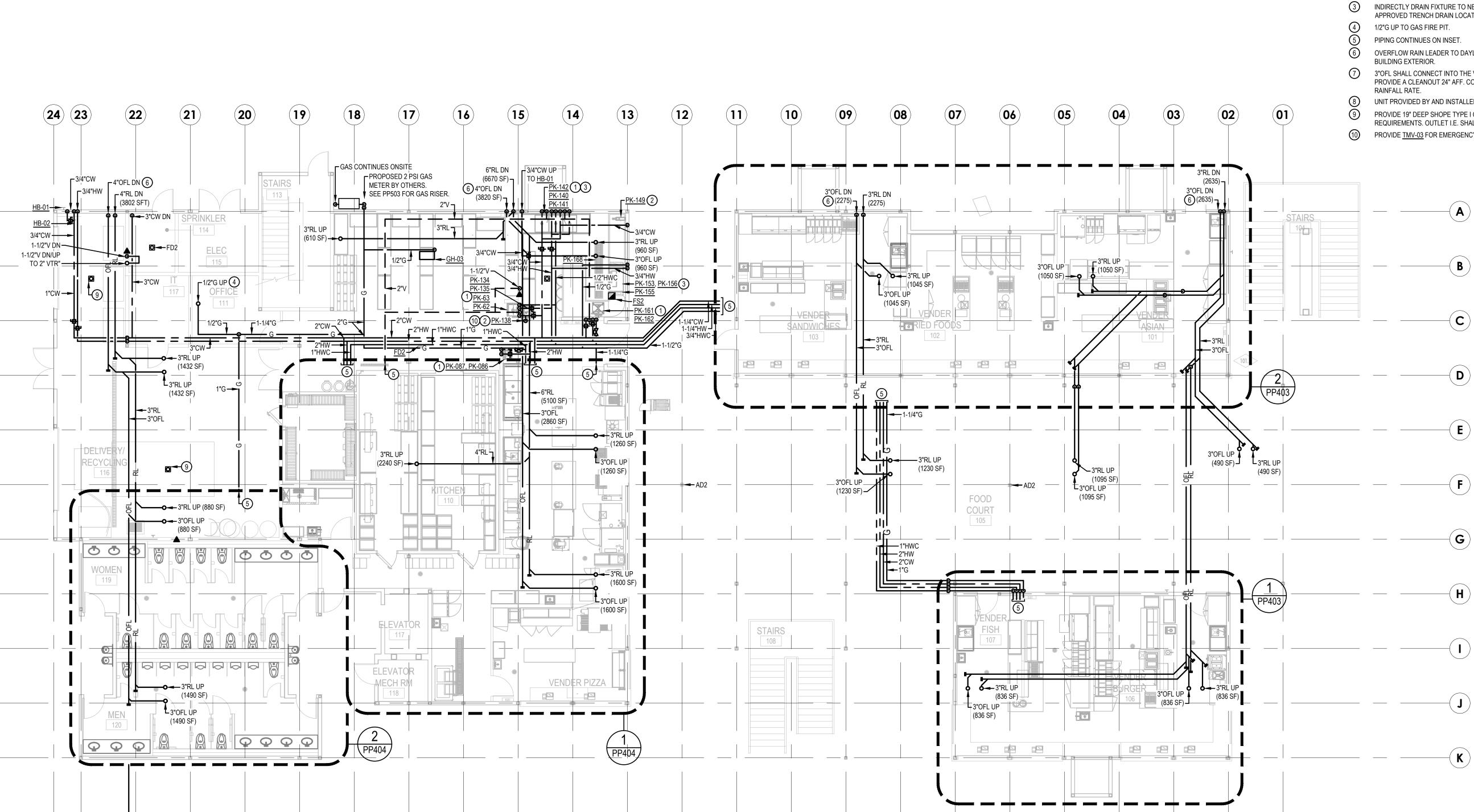
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PLUMBING FIRST FLOOR PLAN

- PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.
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PLAN NOTES

2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC
INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK.
1-1/2"W, 3/4"CW, 3/4"HW

2"W, 1-1/2"V, 3/4"HW

PROVIDE HEAT TRACE FOR 20 LF AT 5W/LF 208V 1PH.

PROVIDE HEAT TRACE FOR 5 LF AT 5W/LF 208V 1PH.

4"W, 2"V, 1"CW

PROVIDE <u>BFP-01</u> FOR ASSOCIATED KITCHEN FIXTURE.

(02) **(24) (23) (07) (21) 13**) **(20)** (19) (06) (05) (15) (18) (16) (10) **9** ✓ 3/4"CW DN <u>HB-01</u>—► RD-01 (960 SF) **9** 3"RL UP TO <u>RD-01</u>, 3" DN 3"OFL UP TO <u>RD-01</u> | RD-01 (1050 SF) (1045 SF) OO **(c**) RD-01 (1432 SF) $\left(\mathbf{D}\right)$ RD-01 00 RD-01 (1095 SF) **(F)** 3/4"CW DN 3"OFL UP TO <u>RD-01</u> **G** CONCENTRIC VENT RD-01 1600 SF $\left(\mathbf{H}\right)$ 1/2"CW DN — P-2A 1

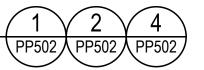
1-1/2"V UP TO VTR — 1/2"HWC DN — 1/2"HWC DN — P-1A 7

1-1/2"V UP TO VTR — 1/2"HW DN — 1-1/2"V UP TO VTR — 1"CW DN — 0U-03

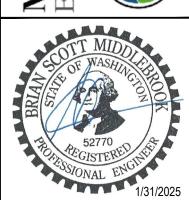
2"V UP TO VTR — 0U-03 RD-01 (836 SF) (836 SF) OU-03

PLUMBING SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"



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LONGBRANCH, WA 98351



UMBING SECOND FLOOR PLAN

City of Puyallup
levelopment & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

INTERNATIONAL VILLAGE 110 9TH AVE SW PUYALLUP, WA 98371

REVISIONS

NO DESCRIPTION DATE

CONFORMED 1/31/2025

PERMIT RESUB. 9/11/2024

UNDERGROUND 9/23/2024

ENDERGROUND 10/15/2024

CONSTRUCTION 10/15/2024

CONSTRUCTION 10/15/2024

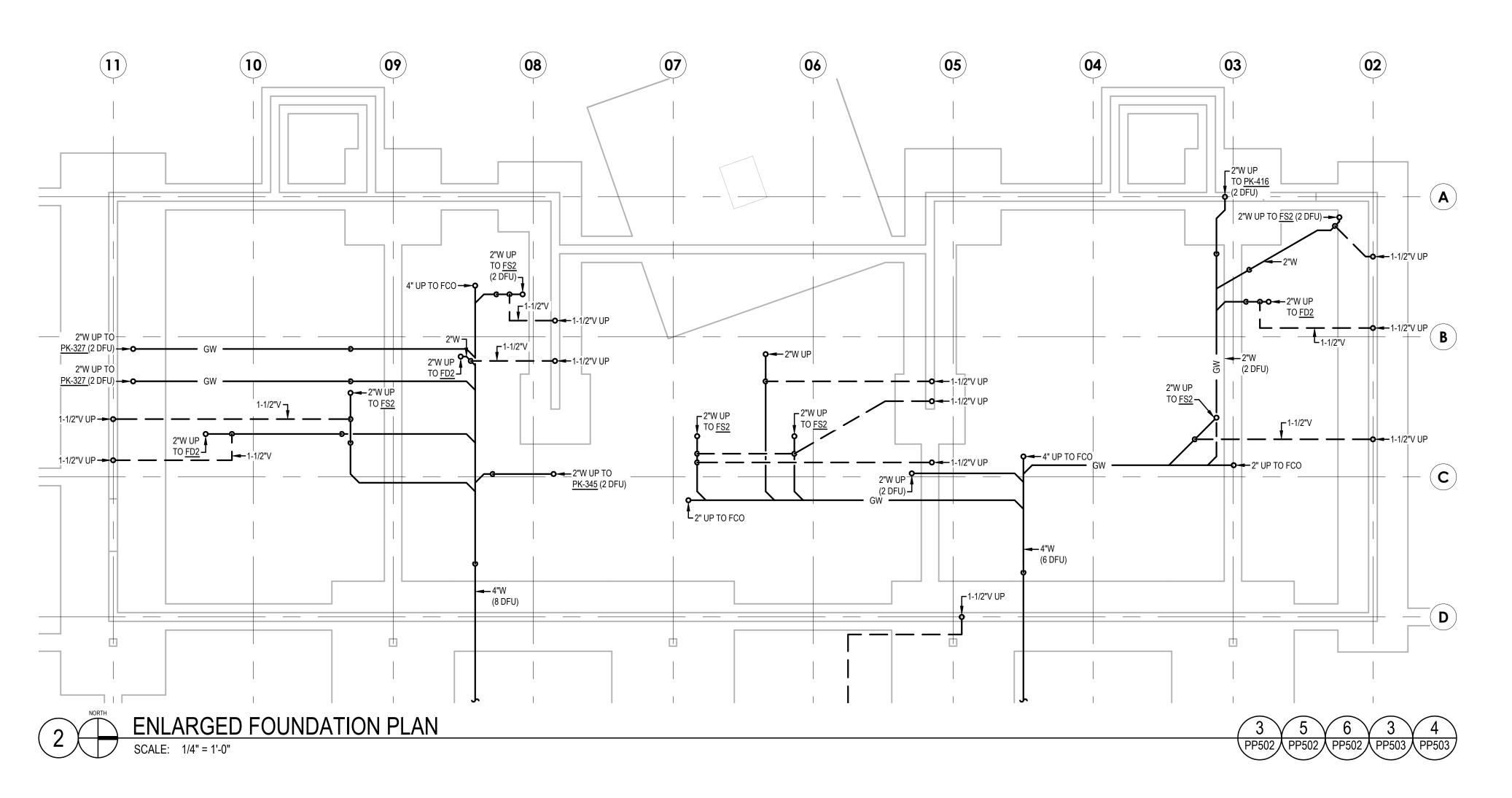
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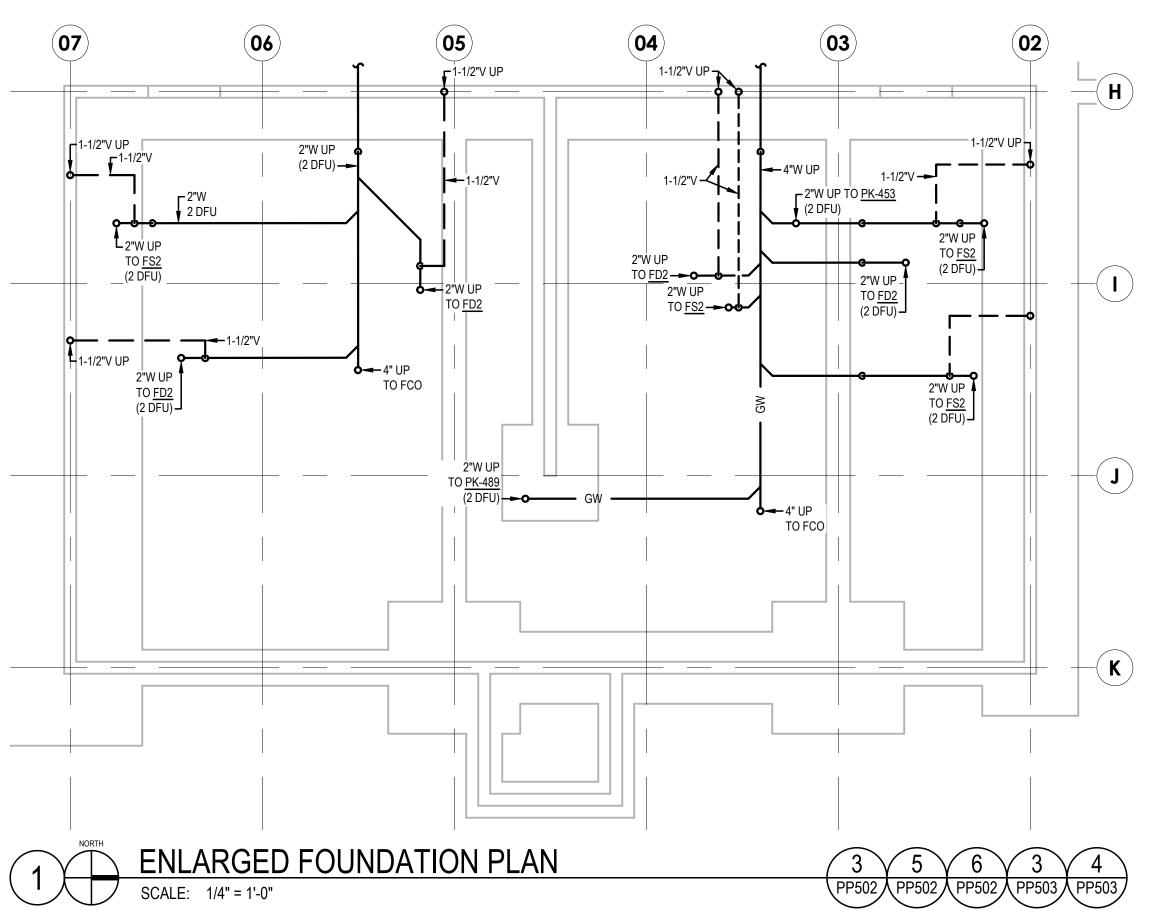
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PROJECT MANAGER: BSM/RMC

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ENLARGED FOUNDATION PLANS I

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

REVISIONS

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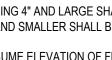
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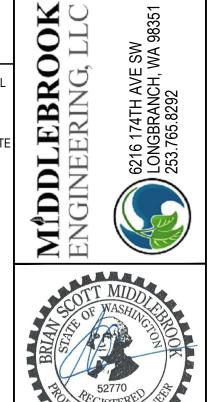
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PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

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ARGED FOUNDATION PLANS II

City of Puyallup evelopment & Permitting Service ISSUED PERMIT Building Planning Engineering Public Works Fire Traffic

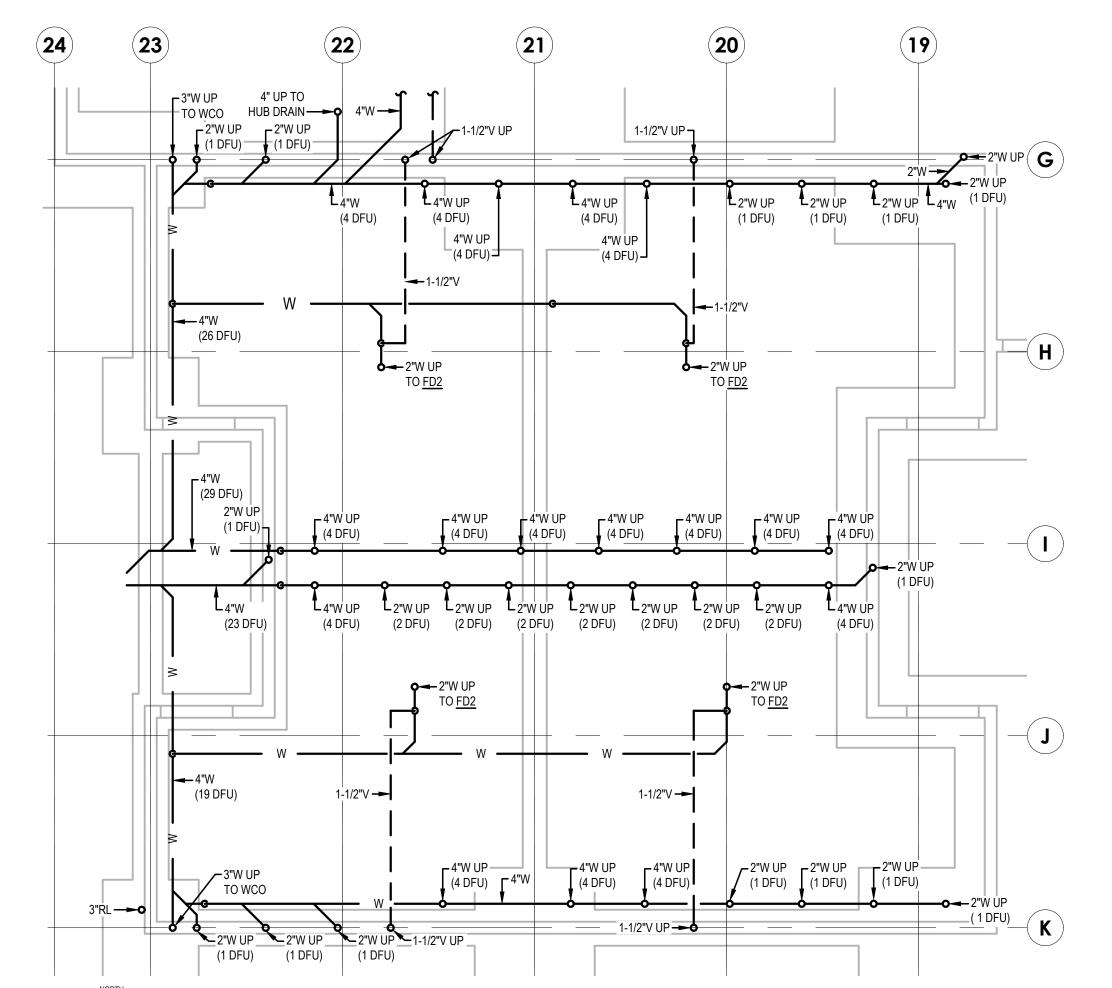
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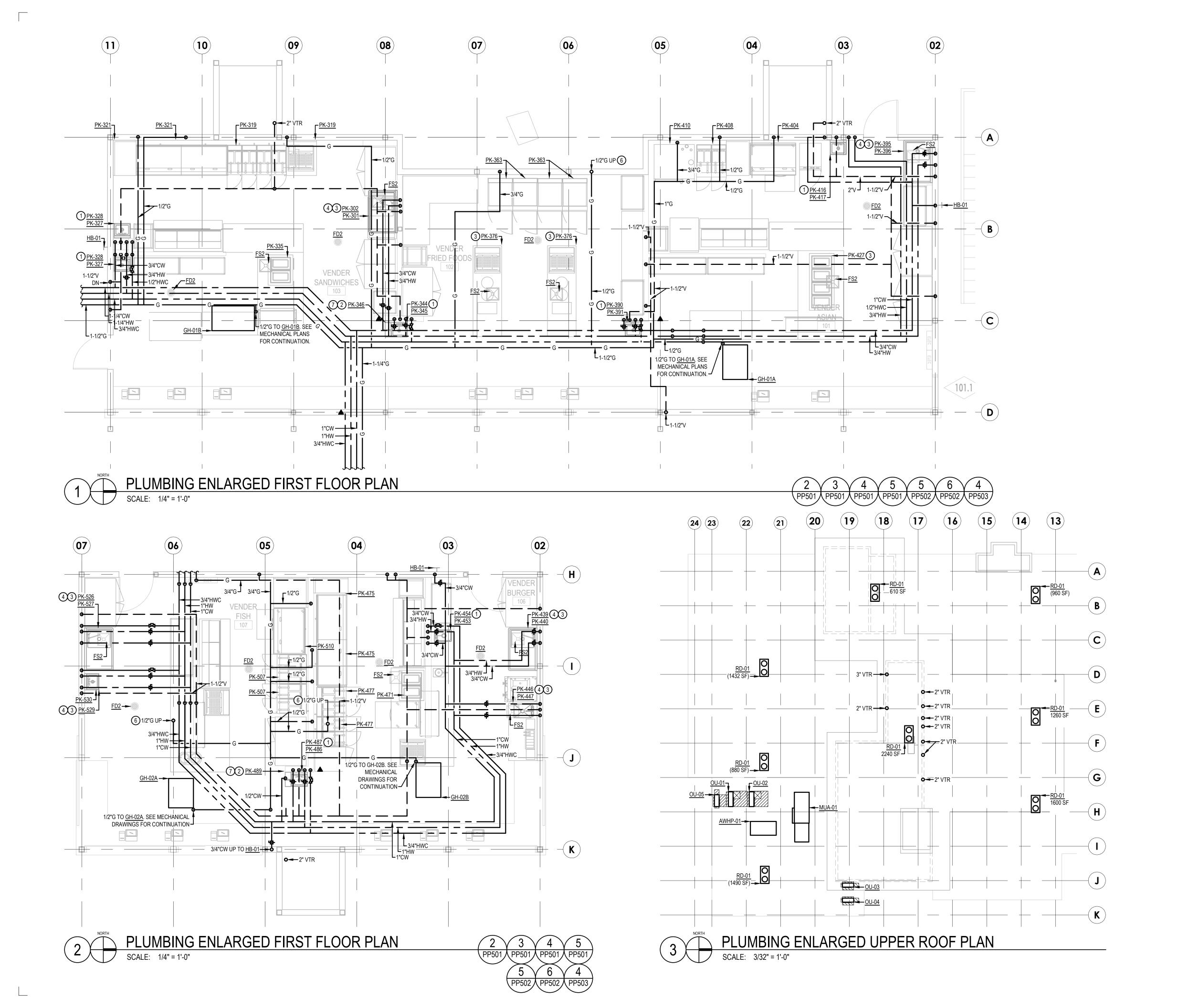
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ENLARGED FOUNDATION PLAN

ENLARGED FOUNDATION PLAN



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PLAN NOTES

2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC

2) 3/4"CW

(3) INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK, MOP SINK OR APPROVED TRENCH DRAIN LOCATION. COORDINATE WITH PLUMBING.

3/4" CW, 3/4"HW, 3/4"HWC

5) 3/4" CW DN TO <u>PK-417</u>, 3/4" CW UP TO <u>HB-01</u>.

1/2"G UP TO FIRE PIT.

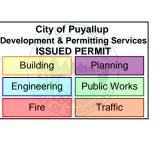
PROVIDE <u>TMV-03</u> FOR EMERGENCY EYE WASH.

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ENGINEERING, LLC

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LONGBRANCH, WA 98351



PLUMBING ENLARG FLOOR PLANS I

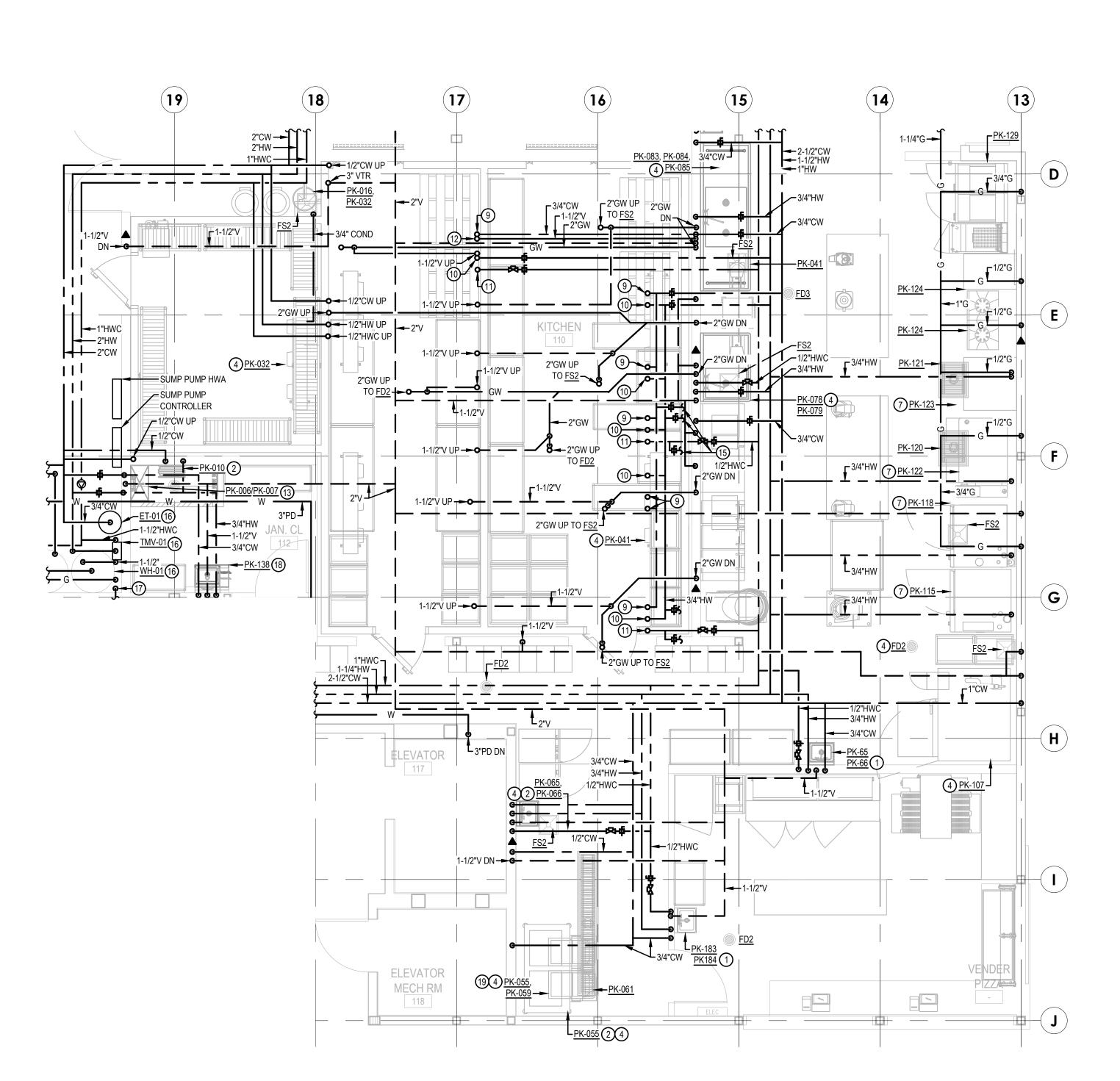


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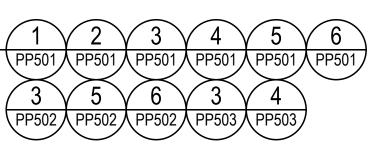
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PLAN NOTES

2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC

2 3/4"CW

1"CW, 4"W, 2"V

INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK, MOP SINK OR APPROVED TRENCH DRAIN LOCATION.

2"W, 1-1/2"V, 3/4"CW

2"W, 1-1/2"V, 3/4"CW

PUMP DISCHARGES DIRECTLY INTO 4" HUB DRAIN. TERMINATE WITH 1" AIR

1/2"HWC UP

2"W UP

3"W, 2"V, 1/2"HW, 3/4"CW CONTINUES TO HOT WATER PLANT. SEE DETAIL 1/PP501.

1/2" NORMALLY CLOSED VALVE. FIELD ROUTE 1/2" DRAIN LINE TO NEAREST FLOOR SINK. TERMINATE WITH 1" AIR GAP.

SEE FLOW DIAGRAMS AND DETAILS FOR PIPING INSTRUCTIONS. 3" COMBUSTION AIR & VENT. TERMINATE ON MECHANICAL ROOF WITH

CONCENTRIC VENT KIT.

PROVIDE HAWS 9201EFE ANSI 2358.1 TMV-03 FOR EMERGENCY EYE WASH.

PROVIDE BFP-01 FOR ASSOCIATED KITCHEN FIXTURE..

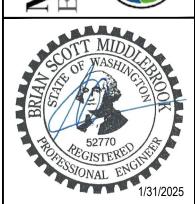
COORDINATE WITH PLUMBING. 7 2"W, 1-1/2"V, 3/4"HW 3/4"CW UP

GENERAL NOTES

PIPING 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT.

FINAL ELEVATIONS WITH STRUCTURAL AND CIVIL PLANS.

M'DDLEBROOK ENGINEERING, LLC PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND WASTE PIPING 4" AND LARGE SHALL BE SLOPED AT 1/8" PER FOOT. WASTE 3. PLANS ASSUME ELEVATION OF FLOOR IS SET AT 0 FEET. COORDINATE



ENLARGEE PLANS II PLUMBING I FLOOR F

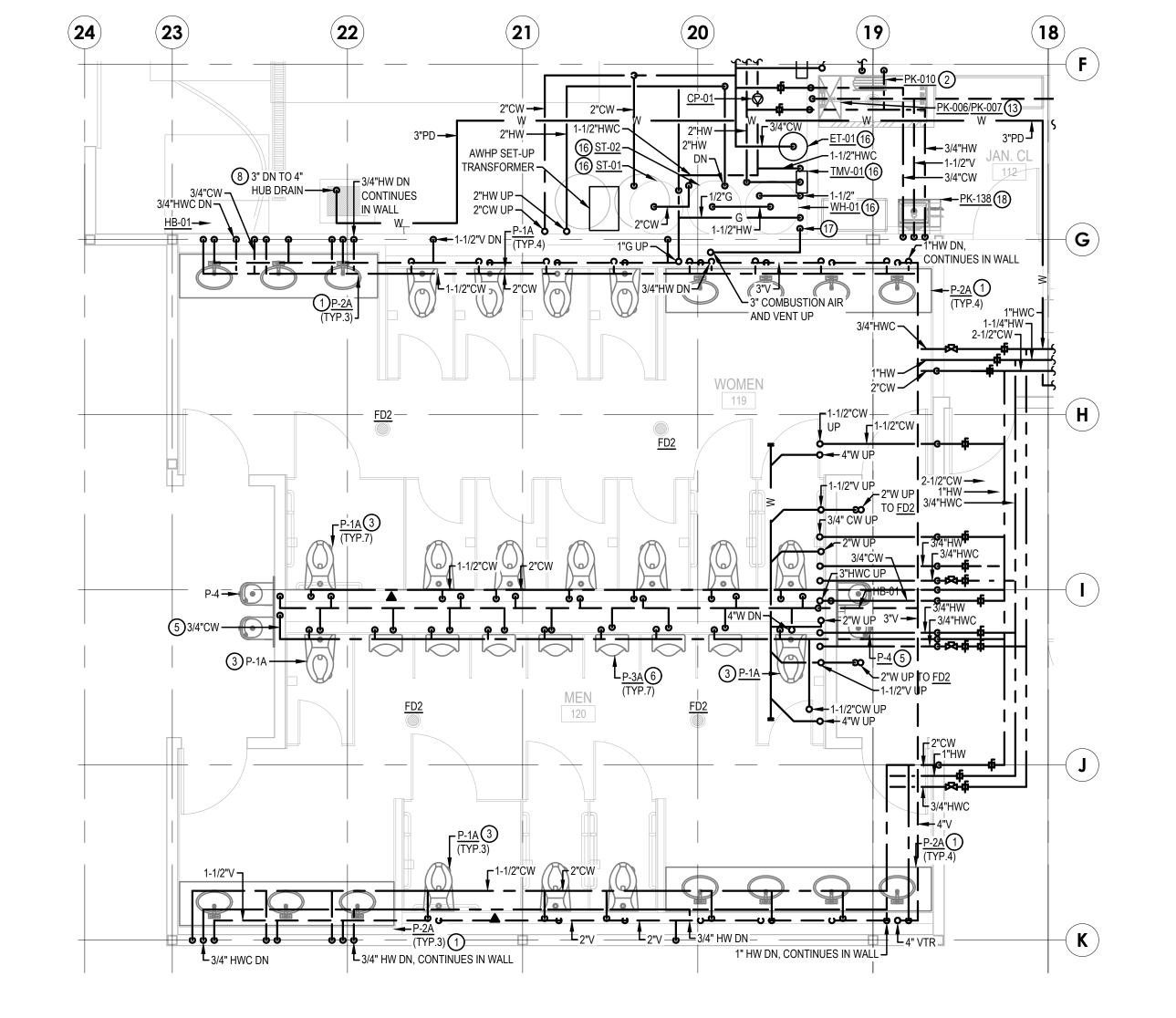
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CONSTRUCTION
DOCS 10/15/2024 RPG DRAWN BY: BSM CHECKED BY:

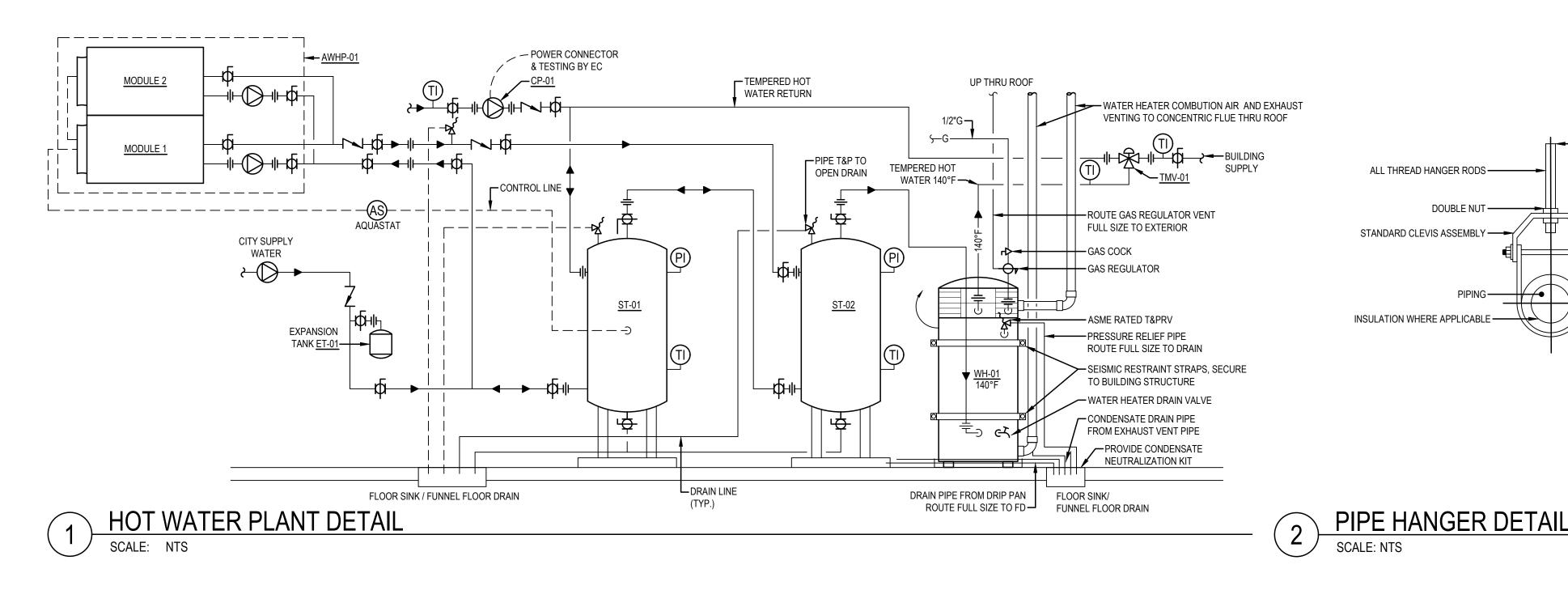
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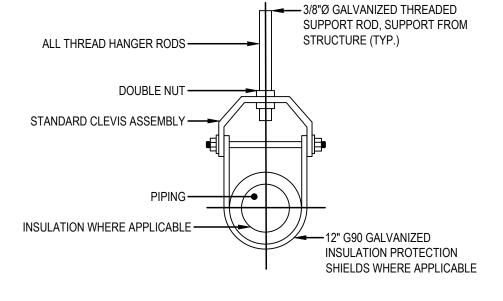
PP404

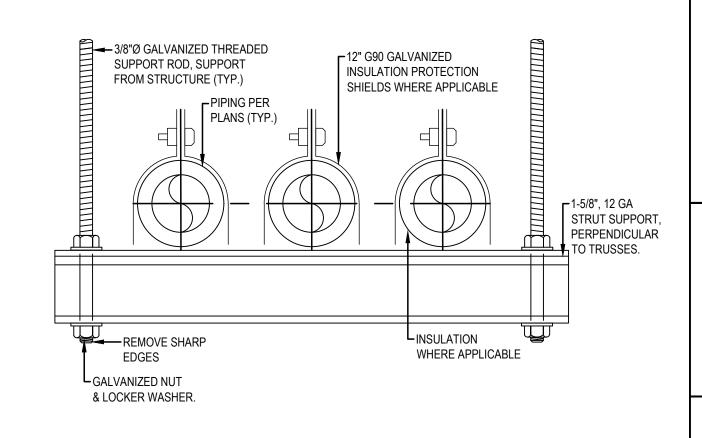


PLUMBING ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

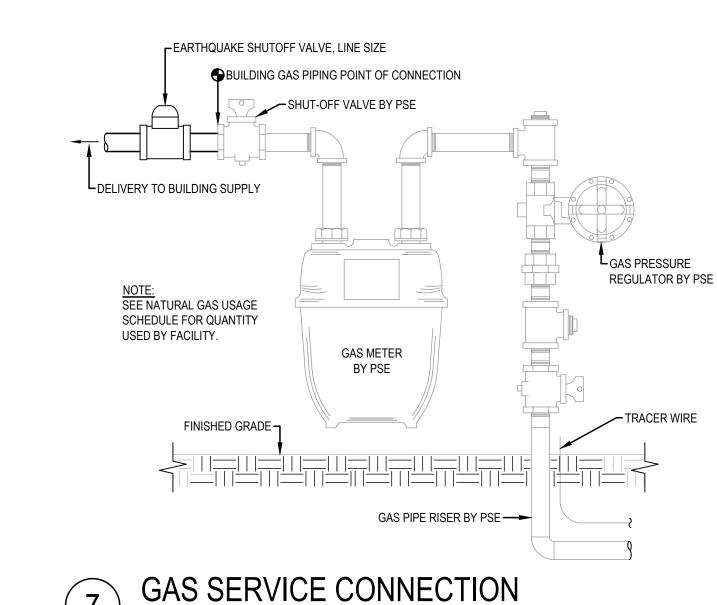






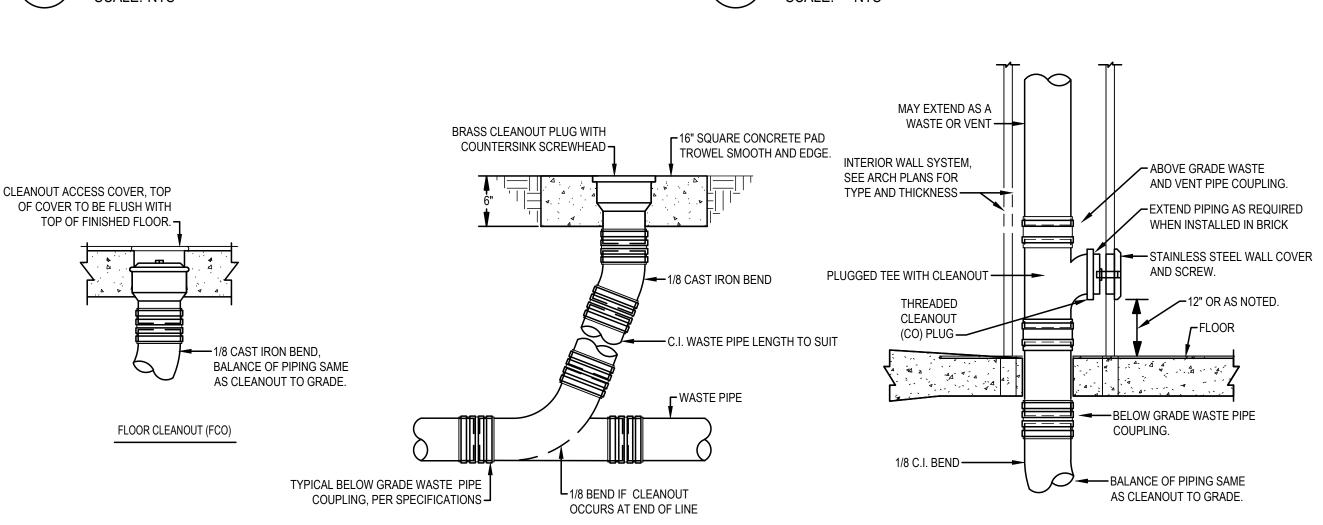
PROVIDE THREE SUPPORT RODS FOR STRUT LONGER THAN 24"

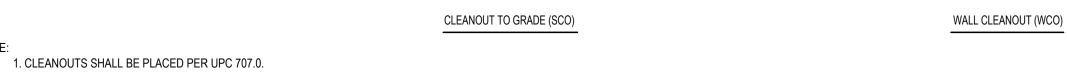
PIPE TRAPEZE DETAIL





_ _ _ _ _ _ _





1-HR RATED WALL/STUD ASSEMBLY. SEE ARCH PLANS FOR EXACT WALL TYPE AND

CHROME PLATED WALL

¬DOUBLE WALL FLUE

FIRESTOP RATINGS:

F - 1 HR

T - 0 HR

ESCUTCHEON AS REQUIRED

FOR FINISHED APPEARANCE

CONSTRUCTION MATERIALS

. — — — — –

CLEANOUT DETAIL

CYLINDRICAL STEEL SLEEVE. LENGTH OF

STEEL SLEEVE TO BE EQUAL THICKNESS

OF AND 1/2"MIN BEYOND THE SURFACE

OF THE WALL ON BOTH SIDES PER 3M

FIRESTOP SYSTEM W-L-1003 -

PARTITION OR MASONRY WALL, SEE ARCH PLANS FOR EXACT WALL TYPE AND THICKNESS SLEEVE, LENGTH AS REQUIRED TO EXTEND - CHROME PLATED WALL THROUGH WALL ~ ESCUTCHEON AS REQUIRED FOR FINISHED APPEARANCE TYPICAL HORIZONTAL PIPE ➤ ACOUSTICAL CAULKING ALL AROUND

➤ BACKER ROD (TYP)

►1"MINIMUM MINERAL WOOL PACKING MATERIAL AND

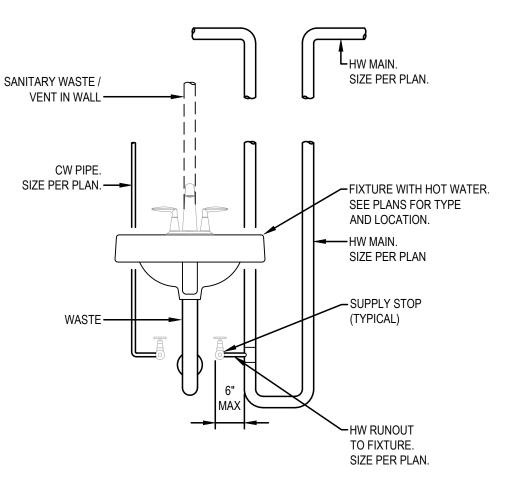
POLYETHYLENE BACKER ROD FIRMLY PACK INTO

STEEL SLEEVE ON BOTH SIDES OF WALL ASSEMBLY

AND RECESSED 1/2" FROM END OF STEEL SLEEVE

PER 3M FIRESTOP SYSTEM W-L-1003

PIPE PENETRATION DETAIL (HORIZONTAL ASSEMBLY)



HOT WATER PIPE TO PLUMBING FIXTURE DETAIL

DRINKING FOUNTAIN

VENT TO

TO APPLIANCE

ATMOSPHERE

IF APPLICABLE

LNOINU

. INSTALL GAS CONNECTIONS PER MANUFACTURER'S RECOMMENDATION. REFER TO

MECHANICAL DOCUMENTS AND CONSTRUCTION SUBMITTALS FOR MORE INFORMATION.

-PRESSURE REGULATOR,

WATER COOLER BLKAY 120V POWER CORD -3/8" CW STUB WITH SHUT-OFF, 3" MAX STUB OUT FROM WALL --1-1/2" WASTE OUTLET, DRAIN WALL MOUNT STUB 2 IN/OUT FROM WALL DRINKING FOR 1-1/2" P-TRAP FOUNTAIN — FLOOR SLAB 7

GAS APPLIANCE CONNECTION DETAIL

GAS COCK -

—DIRT LEG

FROM GAS SUPPLY

1. BASIS OF DESIGN IS BI-LEVEL ADA COOLER, NON-FILTERED REFRIGERATED, STAINLESS STEEL. 2. SEE PLUMBING FIXTURE SCHEDULE FOR EXACT ELKAY MODEL NUMBERS AND CONFIGURATION. 3. SEE ARCH PLANS AND SPECIFICATION FOR ACCESSIBILITY COMPLIANT FIXTURE MOUNTING HEIGHTS AND OTHER REQUIREMENTS.

PP501

INTERNATIONAL 110 9TH AVE SW PUYALLUP, WA 98371 **REVISIONS** DESCRIPTION 1/31/2025 CONFORMED PERMIT RESUB. REV 2
CONSTRUCTION

opment & Permitting Servi

Building Planning

Engineering Public Works

Traffic

Fire OF Was

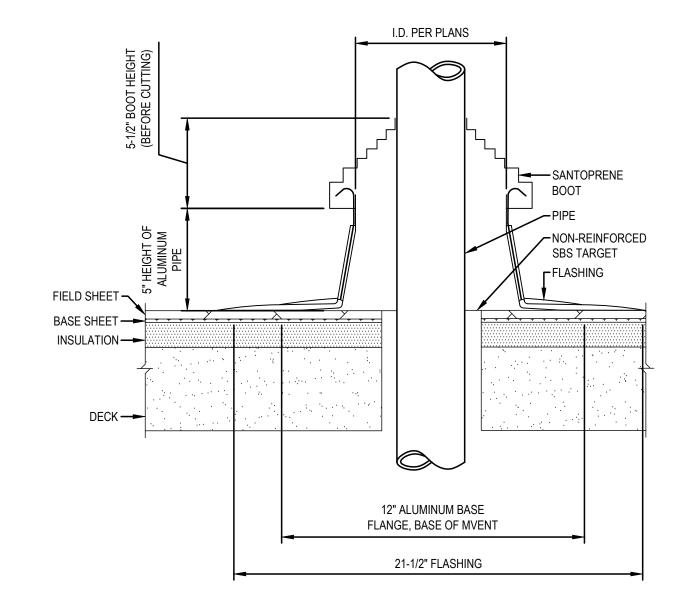
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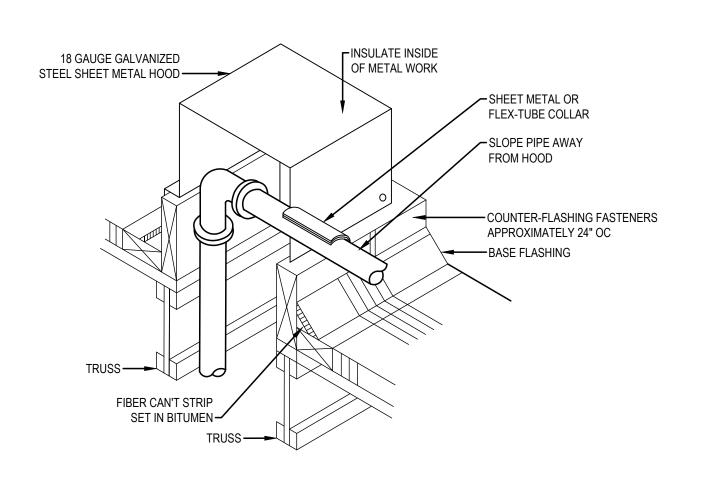
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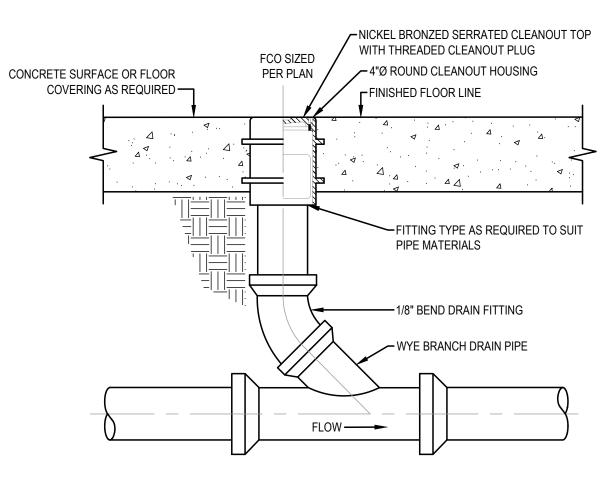
9/23/2024 9/25/2024 10/15/2024 RPG DRAWN BY: BSM CHECKED BY: BSM/RMC

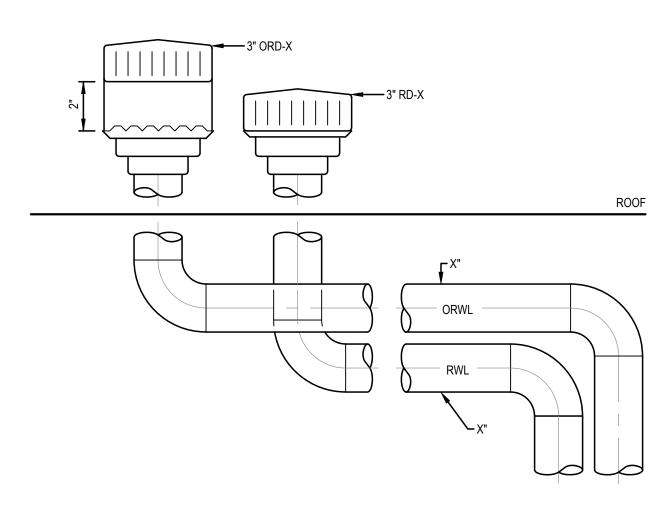
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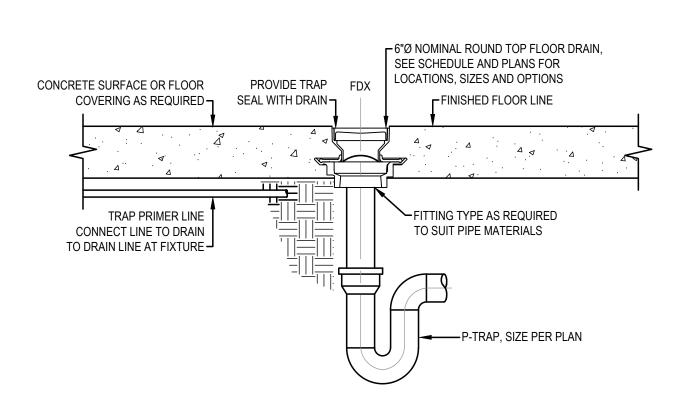


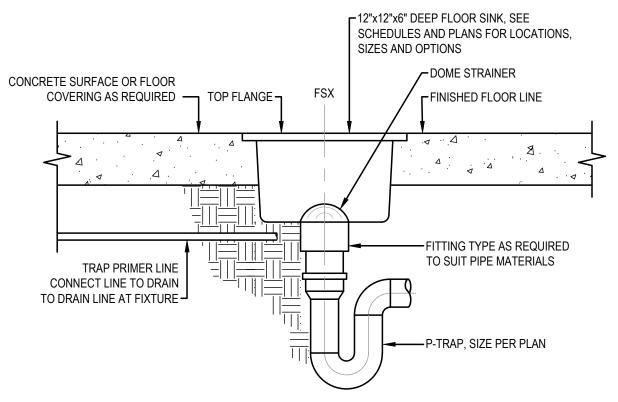
ROOFTOP PIPE PENETRATION DETAIL

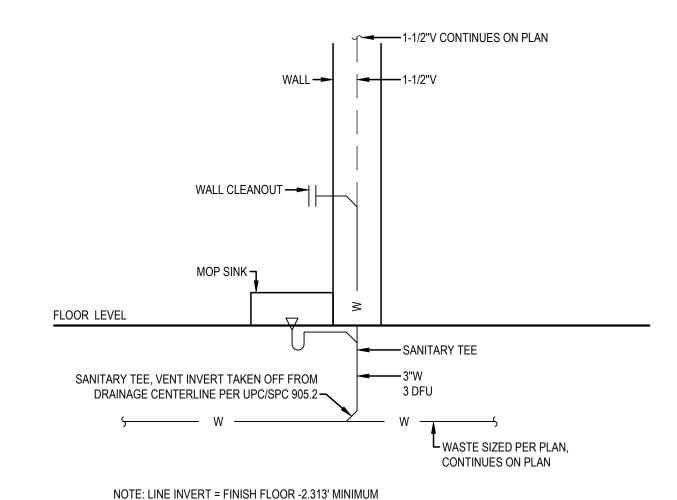
ROOFTOP PIPE PENETRATION DETAIL

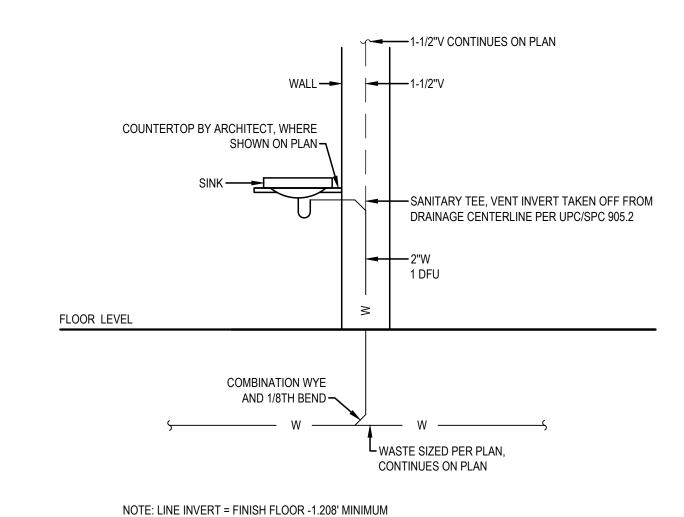
FLOOR CLEANOUT

ROOF/OVERFLOW DRAIN









NOTE: FLOOR DRAIN SHOWN, AREA DRAIN SIMILAR.

SERVICE SINK WASTE RISER (MOP SINK RISER)

LAVATORY WASTE RISER

FLOOR / AREA DRAIN

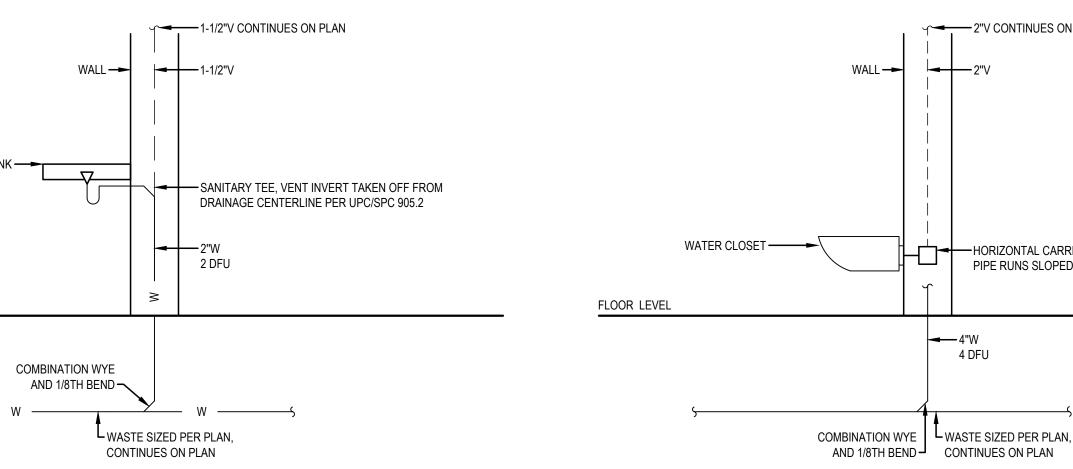
2"V CONTINUES ON PLAN WALL ->

HORIZONTAL CARRIER, WASTE

4 DFU

PIPE RUNS SLOPED IN WALL

FLOOR SINK
SCALE: NTS



1-1/2"V CONTINUES ON PLAN WALL -> WALL CLEANOUT ---SANITARY TEE FLOOR DRAIN OR FLOOR SINK -FLOOR LEVEL — SANITARY TEE, VENT INVERT TAKEN OFF FROM DRAINAGE CENTERLINE PER UPC/SPC 905.2 2 DFU WASTE SIZED PER PLAN, LONG SWEEF CONTINUES ON PLAN **ELBOW** NOTE: LINE INVERT = FINISH FLOOR -1.760 MINIMUM

WYE BRANCH FITTING ► VENT, SIZED PER PLAN FLOOR LEVEL **!**_-!_____ LWASTE, SIZED PER PLANS LTRAP ARM, LENGTH PER UPC

NOTE: VENT SHALL BE ALLOWED TO CONNECT TO OTHER VENTS 6" ABOVE FLOOD RIM.

NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

WALL MOUNTED WATER **CLOSET WASTE RISER**

NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

SCALE: NTS

FLOOR DRAIN / FLOOR SINK WASTE RISER

SCALE: NTS

REMOTE FLOOR DRAIN DETAIL

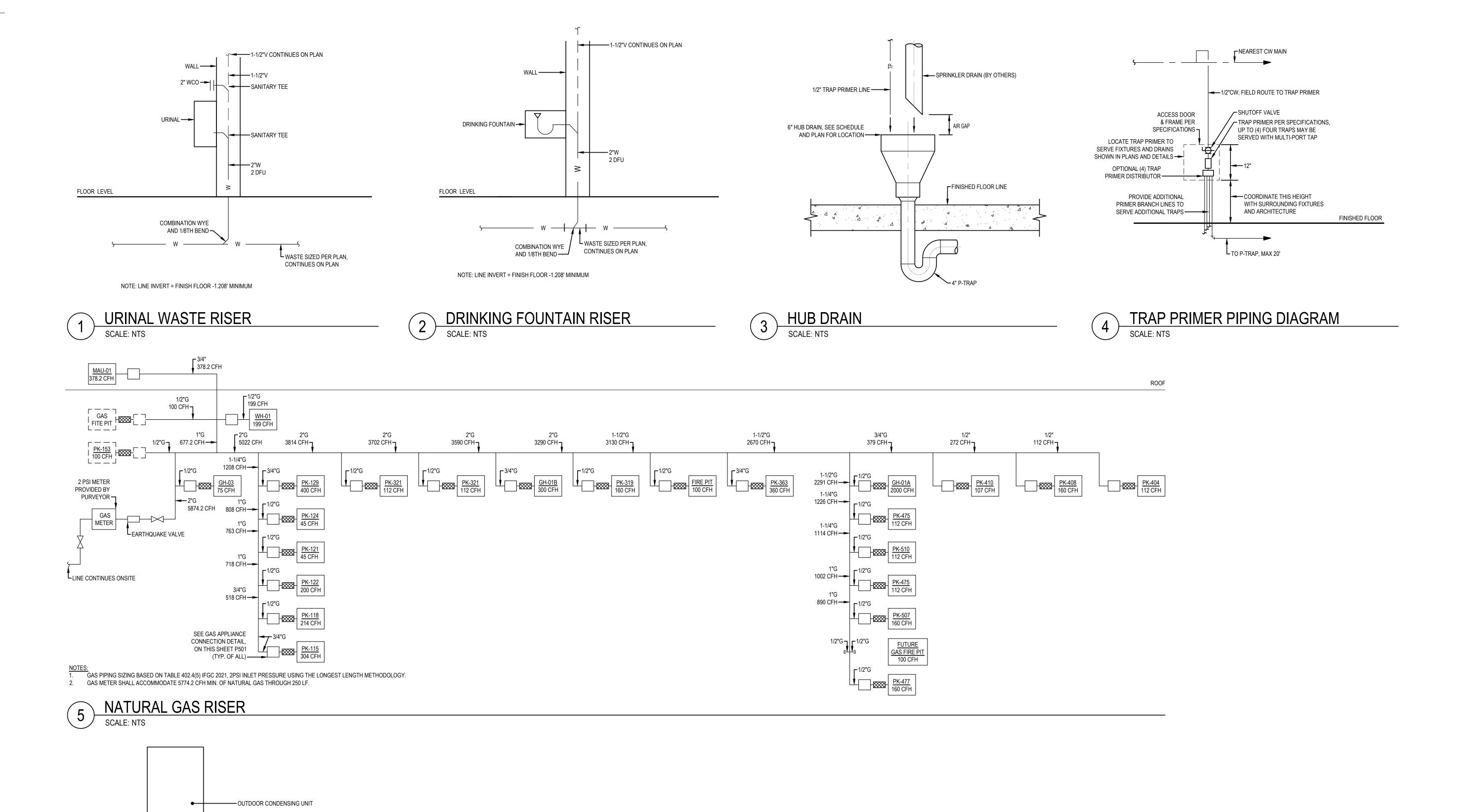
WALL HUNG SINK ---FLOOR LEVEL

TYPICAL SINK WASTE RISER

City of Puyallup elopment & Permitting Servic ISSUED PERMIT Building Planning Engineering Public Works Fire Traffic AGE INTERNATIONAL VE 110 9TH AVE SW PUYALLUP, WA 98371 REVISIONS

DESCRIPTION 1/31/2025 CONFORMED PERMIT RESUB 9/23/2024 <u>∕</u>2 REV 2 9/25/2024 10/15/2024 RPG DRAWN BY: BSM CHECKED BY:

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-PROVIDE MANUFACTURER'S RECOMMENDED ANCHORING BOLTS

--- NEOPRENE PAD PER 23 0548 (TYP.)

CONDENSER CURB AND FLASHING

PER ARCHITECTURAL

ROOFTOP CONDENSING

UNIT SUPPORT DETAIL

Building Planning Engineering Public Works Fire Traffic AGE INTERNATIONAL 110 9TH AVE SW PUYALLUP, WA 98371 REVISIONS DESCRIPTION CONFORMED PERMIT RESUB. 9/25/2024 10/15/2024 RPG DRAWN BY: BSM CHECKED BY: BSM/RMC PROJECT MANAGER: REUSE OF DOCUMENTS
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City of Puyallup relopment & Permitting Service ISSUED PERMIT

M'DDLEBROOK ENGINEERING, LLC

				PLUMBING FIXTURE SCHEDULE							
UNIT NO	FIXTURE	MOUNTING		MANUFACTURER AND MODEL NUMBERS	W	V	HW	CW	GPF	GPM	NOTES
			TOILET:	AMERICAN STANDARD AFWALL 2257.101	4"	2"	-	-	-	-	2,3,
D 44	WATER OLOGET ARA	WALL	SEAT:	BEMIS - 1955CT	-	-	-	-	-	-	
P-1A	WATER CLOSET ADA	WALL	FLUSH VALVE:	TOTO TET1LA	-	-	-	1	1.28	-	4
			CARRIER:	JAY R SMITH: 0925	-	-	-	-	-	-	
			LAVATORY:	TOTO LT641	2"	1-1/2"	-	-	-	-	
P-2A	LAVATORY ADA	UNDERMOUNT	FAUCET:	TOTO TEL105i2	-	-	1/2"	1/2"	-	0.5	1,3,
			TRAP:	DEARBORN BRASS - 17GA W/ GROUND JOINT	1-1/2"	-	-	-	-	-	
P-3A	URINAL	WALL	URINAL	AMERICAN STANDARD WASHBROOK FLO WISE 6590.001	2"	1-1/2"	-	-	-	-	2,3,
P-3A	URINAL	WALL	FLUSH VALVE:	TOTO TEU1LAi	-	-	-	3/4"	0.5	-	4
			CARRIER:	JAY R SMITH: 0925	-	-	-	-	-	-	
P-04	DRINKING FOUNTAIN	WALL	UNIT:	ELKAY- EDFPVR217C	2"	1-1/2"	-	3/8"	-	-	
HB-01	HOSE BIB	WALL	UNIT:	WOODFORD MODEL 68	-	-	-	3/4"	-	-	
HB-02	HOSE BIB HOT/COLD	WALL	UNIT:	WOODFORD MODEL B22	-	-	3/4"	3/4"	-	-	
RD-1	ROOF DRAIN	ROOF	UNIT	JAY R SMITH 1800	3"	-	-	-	-	-	
FCO	FLOOR CLEANOUT	FLOOR	UNIT:	JAY R SMITH - 4040	-	-	-	-	-	-	
WCO	WALL CLEANOUT	WALL	UNIT:	JAY R R SMITH - 4422	-	-	-	-	-	-	
FS2	FLOOR SINK,2"	FLOOR	UNIT:	JAY R SMITH 320-Y02	2"	1-1/2"	-	-	-	-	
FD2	FLOOR DRAIN, 2"	FLOOR	UNIT:	ZURN FD-2200	2"	1-1/2"	-	-	-	-	
FD3	FLOOR DRAIN, 3"	FLOOR	UNIT:	ZURN Z-511	3"	1-1/2"	-	-	-	-	

1. EQUIPMENT MAY BE SUBSTITUTED UPON ENGINEER'S APPROVAL FOR EQUAL OR OTHER MFG/MODEL. REFER TO EQUIPMENT SUBMITTAL FOR FINAL SELECTIONS.

2. TRANSISTION PIPE SIZE SHOWN ON PLAN TO STOP OR CONNECTION SIZE SHOWN ON SCHEDULE.

3. IF COLOR/FINISH OPTIONS EXISIT FOR FIXTURES, COORDINATE FINAL COLORS/FINISHES WITH ARCHITECT.

NOTES:

1. MAXIMUM DELIVERY TEMPERATURE SHALL BE 105 DEGREES FAHRENHEIT. PROVIDE WITH BELOW DECK MIXING VALVE OPTION.

2. PROVIDE WITH BOLTS AND BOLT COVERS.

3. ADA COMPLIANT FIXTURE. COORDINATE FIXTURE HEIGHT WITH ARCHITECT.

4.SELF-POWERED HYDROELECTRIC FLUSH VALVE SYSTEM.

	EXPANSION TANK SCHEDULE												
UNIT	MFR	MODEL	LOCATION	TANK SIZE	ACCEPTANCE	WEIGHT	NOTES						
NO	IVIFK	MODEL	LOCATION	(GAL)	(GAL)	(LBS)	NOTES						
ET-01	WESSELS	TTA-100	COMPACTOR	45	53	30	1						
NOTES:													

	STORAGE TANK SCHEDULE										
UNIT NO	UNIT NO TYPE MFG MODEL DESCRIPTION/ DATA NOTES										
ST-01	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2						
ST-02	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2						

1. FILL PRESSURE SHALL BE SET TO 150 PSI RELIEF.

1. GLASS LINED.

2. PROVIDE WITH MAGNESIUM ANODE.

	STORAGE TANK SCHEDULE											
UNIT NO	TYPE	MFG	MODEL	DESCRIPTION/ DATA	NOTES							
ST-01	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2							
ST-02	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2							
NOTEO		_										

	WATER HEATER SCHEDULE																			
UNIT	MFR.	MODEL	LOCATION	DIMEN	SIONS	TANK SIZE	INPUT	OUTPUT	COP	FFF	CFM	RECOVERY	TEMP		ELECT	RICAL		DISCON	WEIGHT	NOTES
NO	WIFK.	MODEL	LOCATION	HEIGHT	WIDTH	(GAL)	(MBH)	(MBH)	COP	EFF	CFIVI	(GPH)	RISE (F)	MCA	MOCP	VOLT	PH	FURN. BY	WEIGHT	NOTES
AWHP-01	LOCHINVAR	AHP200	MECH ROOM	71.75	38.5	-	-	203.6	4.38	-	17224	-	-	134	150	208	3	EC	2032	3,4,5
WH-01	LOCHINVAR	SWA200N	MECH ROOM	76	28	-	199	180	-	96	-	232	100	-	-	-	ı	EC	725	1,2

FLOW

(GPM)

10.5

PUMP SCHEDULE

RPM

3600

HEAD

18

1. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.

2. PROVIDE WITH HORIZONTAL CONCENTRIC VENT KIT.

3. PROVIDE WITH SINGLE POINT ELECTRICAL BUS PANEL.

4. PROVIDE WITH MANUFACTURER'S RECOMMENDED SEISMIC BRACING KIT.

5. PROVIDE WITH NEMA3R RATED STEP UP TRANSFORMER

	ELEVATOR SUMP PUMP SCHEDULE												
UNIT NO	MFR	MODEL	LOCATION	FLOW	HEAD	RPM		ELECTRICAL			STARTER	DISCONNECT	NOTES
				(GPM)	FT		HP	WATT	VOLTS	PH	FURN. BY	FURN. BY	
SP-01	LIBERTY	ELV 290	ELEVATOR SUMP	50	26	3400	3/4	-	208	1	MC	EC	1, 2, 3

1. ALARM SHALL SOUND IF OIL IS DETECTED IN SUMP.

NOTES:

2. UNIT CONTINUES TO OPERATE IF OIL IS DETECTED.

3. PROVIDE WITH MANUFACTURER'S RECOMMENDED CONTROL BOX AND HIGH WATER ALARM.

CONNECT	NOTES		
JRN. BY		UNIT NO	MFR
EC	1, 2, 3		
		CP-01	BELL & GOSSETT

CP-01	BELL & GOSSETT	ECOCIRC 20	MECHANICAL RM
NOTES:			
1. PROVIDE V	VITH AQUASTAT AND TIME	R AS UNIT STARTE	ER.

MODEL

	BACKFLOW PREVENTER SCHEDULE													
UNIT NO MFR MODEL		MODEL	LOCATION		TYPE		SIZE	PRESSURE DROP	SERVICE	NOTES				
UNIT NO	UNIT NO WIFK WIODEL LOCATION		LOCATION	RP	DC	AG	(IN)	(PSI)	SERVICE	NOTES				
BFP-01	WATTS	SD-3	MECH. ROOM	- X - 3/8, 1/2 12 BEVERAGE 3										

1. SIZE TO MATCH WATER LINE.

THERMOSTATIC MIXING VALVE SCHEDULE								
UNIT NO	MFR	MODEL	SERVICE	INLET SIZES	OUTLET SIZE	MINIMUM FLOW	PRESSURE DROP	NOTES
				(IN)	(IN)		(PSI)	
TMV-01	WATTS	LFN270-M3	LOW TEMP FIXTURES	2	2	7GPM	10	1,
TMV-02	BRADLEY	S59-2007	LOW TEMP FIXTURES	0.5	0.5	2GPM	5	-
TMV-03	HAWS	9201EFE	EMERGENCY EYE WASH	0.5	0.75	1GPM	5	2

ELECTRICAL

VOLTS

120

WATT

0.17

DISCONNECT

FURN. BY

NOTES

1. SET OUTLET DISCHARGE TEMP TO 140°F.

LOCATION

2. CSA CERTIFIED PER ASSE 1071, ANSI Z358.1.



City of Puyallup relopment & Permitting Services ISSUED PERMIT

Building Planning Engineering Public Works Fire Traffic

INTERNATIONAL NA 110 9TH AVE SW PUYALLUP, WA 98371

쫎	— — —	
RE	VISIONS	
NO	DESCRIPTION	DATE
	CONFORMED	1/31/2025
	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
<u>^</u>	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024
DRA	WN BY:	RPG
CHE	CKED BY:	BSM
PRO	JECT MANAGER:	BSM/RMC

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				P	LUMBING	PIPE SIZ	NG CHAF	RT				
	COLD \	WATER			HOT WATER			WA	VENT			
PIPE SIZE	GPM RANGE	TANK UNITS	VALVE UNITS	PIPE SIZE	GPM RANGE	FIXTURE UNITS	PIPE SIZE	VERTICAL	HORIZONTAL (1/4"/FT)	HORIZONTAL (1/8"/FT)	VENT UNITS	MAX VENT LENGTH
1/2"	0-1.8	0-0.8	-	1/2"	0-1.8	0-0.8	1/2"	-	-	-	-	-
3/4"	1.9-4.8	0.9-5.8	-	3/4"	1.9-4.8	0.9-5.8	3/4"	-	-	-	-	-
1"	4.9-9.9	5.9-12.9	-	1"	4.9-9.9	5.9-12.9	1"	-	-	-	-	-
1-1/4"	10-17.0	13-24	-	1-1/4"	10-17.0	13-24	1-1/4"	1.0	1.0	-	1.0	15'
1-1/2"	18-27	25-46	0-10	1-1/2"	18-27	25-46	1-1/2"	2.0	1.0	-	2-8.0	20'
2"	28-58	47-165	11-69.0	2"	28-46	47-111	2"	3-16.0	2-8.0	-	9-24.0	40'
2-1/2"	59-100	166-380	70-245	2-1/2"	47-73	112-241	2-1/2"	17-32	9-14.0	-	25-48	60'
3"	101-170	381-748	246-700	3"	74-110	242-431	3"	33-48	15-35	-	49-84	70'
4"	171-300	749-1755	701-1755	4"	111-180	432-809	4"	49-256	36-216	1-172	85-256	100'
5"	301-470	1756-3340	1756-3340	5"	181-290	810-1688	5"	257-600	217-428	173-342	257-600	130'
6"	471-670	3341-5110	3341-5110	6"	291-420	1689-2862	6"	601-1380	429-720	343-576	601-1380	170'
8"	671-1300	5111-11500	5111-11500				8"	1381-3600	721-2640	577-2112	1381-3600	250'
							10"	3601-5600	2641-4680	2113-3744	3601-5600	-
							12"	5601-8400	4681-8200	3745-6560	5601-8400	-

1. THIS CHART IS BASED ON THE UPC APPENDIX A, WATER PIPE COPPER TYPE L

2. COLD WATER IS BASED ON A MAXIMUM OF 8FPS.

3. HOT WATER IS BASED ON A MAXIMUM OF 5 FPS

4. THIS CHART IS BASED ON 3PSI/100 FT FRICTION LOSS.

	PIPE INSULATION SCHEDULE											
FLUID OPERATING	INSULATION	CONDUCTIVITY			NOM	INAL OR TUB	E SIZE (inches)					
AND USAGE (°F)	BTU · in./(h · ft² · °F)	TEMPERATURE, °F	< 1	1 to 1-1/2	1-1/2 to < 4	4 to < 8	≥8					
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0					
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5					
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0					
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0					
105 - 140	0.21 - 0.28	100	1	1.0	1.5	1.5	1.5					
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0					
< 40	0.20 - 0.26	75	0.5	1.0	1.0	1.0	1.5					

GENERAL NOTES:

1. FOR PIPING SMALLER THAN 1-1/2 INCH (38mm) AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKNESESS BY 1 INCH (25mm) SHALL BE PERMITTED (BEFORE THICKNESSES REQUIRED IN FOOTNOTE b) NOT TO A THICKNESS LESS THAN 1 INCH (25mm).

2. FOR INSULATION OUTSIDE THE STATED CONDUCTIVITY RANGE, THE MINUMUM THICKNESS (T) SHALL BE DETERMINED AS FOLLOWS:

 $T = r\{(1 + t/r) \ K/k - 1\}$

WHERE:

T = MINIMUM INSULATION THICKNESS,

r = ACTUAL OUTSIDE RADIUS OF PIPE,

t = INSULATION THICKNESS LISTED IN THE TABLE FOR APPLICABLE FLUID TEMPERATUREAND PIPE SIZE.

 $K = \text{CONDUCTIVITY OF ALTERNATE MATERIAL AT MEAN RATING TEMPERATURE INDICATED FOR THE APPLICABLE FLUID TEMPERATURE (Btu · in/h · ft² x °F)$

k = THE UPPER VALUE OF THE CONDUCTIVITY RANGE LISTED IN THE TABLE FOR THE APPLICABLE FLUID TEMPERATURE.

3. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1-1/2 INCHES (38mm) SHALL BE PERMITTED (BEFORE THCKNESS ADJUSTMENT REQUIRED IN FOOTNOTE b BY BUT NOT TO THICKNESS LESS THAN 1 INCH (25mm)

	KITCHEN FIXTURE SCHEDULE									
UNIT NO	FIXTURE		MANUFACTURER AND MODEL NUMBERS	W	V	HW	CW	IDW	G	NOTES
PK-006	MOP SINK	UNIT:	CUSTOM SS MOP PAN, T&S BRASS - B-0665-BSTP	3"	2"	1/2"	1/2"	-	-	
PK-007	MOP SINK FAUCET	UNIT:	T&S BRASS B-0665-BSTP	-	-	1/2"	1/2"	-	-	
PK-010	HOSE REEL	UNIT:	T&S - B-1439-BF12-C12	-	-	3/4"	3/4"	-	-	
PK-016	FREEZER BLOWER COIL	UNIT:	AMERICAN PANEL	3/4"	-	-	-	-	-	
PK-019	DRAIN THORUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-026	DRAIN THORUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-032	KEG COOLER BLOWER COIL	UNIT:	NEXT-GEN-ALL-TEMP- RL6A094ADA	3/4"	-	-	-	-	-	
PK-037 PK-041	DRAIN THROUGH COOLER BLOWER COIL	UNIT: UNIT:	CUSTOM SS DRAIN THROUGH NEXT-GEN-ALL-TEMP- RL6A094ADA	3"	-	-	-	-	-	
PK-041	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-049	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	 	-	_	_	
PK-055	ICE MACHINE	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-057	ICE MACHINE	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-059	ICE MACHINE BIN	UNIT:	FOLLETT PRODUCTS - DEV1080SG-60-75	1"	-	-	-	-	-	
PK-061	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-062	MOP SINK	UNIT:	JOHN BOOS PBMS2016-12-X	2"	-	-		-	-	
Pk-063	MOP SINK FAUCET	UNIT:	T&S BRASS B-0665-BSTP	-	-	1/2"	1/2"	-	-	
PK-065	HAND SINK	UNIT:	JOHN BOOS - PBHS-14-SS	2"	-	-	-	-	-	
PK-066	HAND SINK FAUCET	UNIT:	T&S BRASS 1B18244-1D24R-X	-	-	1/2"	1/2"	-	-	
PK-077	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS -1B-1D B SERIES	2"	1-1/2"	-	-	-	-	
PK-078	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0230-KIT	-	-	1/2"	1/2"	-	-	
PK-083	2 COMPARTMENT SINK	UNIT:	JOHN BOOS 42PB2028-2D	2"	1-1/2"	- 4 (01)	- 4/011	-	-	
PK-084	SPLASH MOUNT FAUCET	UNIT:	T&S BRAASS B-0231	-	4 4/011	1/2"	1/2"	-	-	
PK-085	HAND SINK	UNIT:	JOHN BOOS PBHS-2-1410-SSLR-X	2"	1-1/2"	- 4/0"	- 4/2"	-	-	
PK-086	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	1 1/4"	-	1/2"	1/2"	-	-	
PK-107 PK-115	ROLL IN BLAST CHILLER COMBINATION OVEN ELECTRIC	UNIT	RINOX - MULTIFRESH MF 100.2 SC RATIONAL - ICOMBI PRO 20	1-1/4"	-	3/4"	-	-	<u>-</u>	
PK-115 PK-118	COMBINATION OVEN ELECTRIC COMBINATION OVEN ELECTRIC	UNIT: UNIT:	RATIONAL - ICOMBI PRO 20 RATIONAL - ICOMBI PRO 20	2"	-	3/4"	-	-	-	
PK-118 PK-122	40 GAL TILT SKILLET	UNIT: UNIT:	RATIONAL - ICOMBI PRO 20 RATIONAL - IVARIOPRO XL	2"	-	3/4"	-	-	-	
PK-123	26 GAL TILT SKILLET	UNIT	RATIONAL - IVARIOPRO L	2"		3/4"				
PK-124	STOCK POT BURNER	UNIT:	US RANGE SP-1844	-	_	-		-	3/4"	
PK-129	DEEP FAT FRYER	UNIT:	FRY MASTER/DEAN - SCFD260G	-	-	-	-	-	1"	
PK-134	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-135	HAND SINK FAUCET	UNIT:	T&S BRASS B-1105	-	-	1/2"	1/2"	-	-	
PK-138	EYE WASH FAUCET	UNIT:	T&S BRASS : EW-7612LH	-	-	1/2"	-	-	-	
PK-140	3 COMPARTMENT SINK	UNIT:	JOHN BOOS 3B-2D B SERIES	2"	1-1/2"	-	-	-	-	
PK-141	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0123	-	-	1/2"	1/2"	-	-	
PK-142	SPLASH MOUNT FAUCET W/ PRE RINSE	UNIT:	T&S BRASS B-0133-01	-	-	1/2"	1/2"	-	-	
PK-149	HOSE REEL	UNIT:	T&S BRASS B-7222-C01-STB	-	-	-	3/8"	-	-	
PK-152	SS BUILT IN QUICK DRAIN	UNIT:	CUSTOM SS QUICK DRAIN	3/4"	-	 -	-	-	-	
PK-153	44" HIGH TEMP CONVEYOR OR DISHWASHER	UNIT:	INSINGER: ADMIRAL 44 ADVANCED R-L	1-1/2"	-	1/2"	-	-	-	1
PK-155	SS BUILT IN QUICK DRAIN	UNIT:	CUSTOM SS BUILT IN DRAIN	3/4"	-	-	-	-	-	
PK-161	GAS BOOSTER HEATER PRE PINSE SINK	UNIT:	HATCO PMG-100 PACIFIC STAINLESS PRE BINSE	- 2"	1_1/2"	-	-	-	3/4"	
PK-161 PK-162	PRE RINSE SINK PRE RINSE SINK FAUCET	UNIT: UNIT:	PACIFIC STAINLESS PRE RINSE T&S BRASS AND BRONZE - B-0133	2"	1-1/2"	1/2"	1/2"	-	-	
PK-162 PK-168	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	1/2"	1/2"	-	-	
PK-100	HAND SINK	UNIT:	JONH BOOS PBHS -W-1410-SS;R-X	2"	1-1/2"	-	-	-	-	
PK-184	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-301	ONE COMPARTMENT SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-302	WALL/ SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0230-KIT	-	-	1/2"	1/2"	-	-	
PK-319	4TOP DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-321	GRIDDLE, GAS, COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-327	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-328	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-335	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC	UNIT:	DELFIELD N8731-D	1/2"	-	-	-	-	-	
PK-344	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-345	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-346	EYE WASH FAUCET	UNIT:	T&S BRASS EW-7612LH	-	-	-	1/2"	-	-	
PK-363	GAS FLOOR FRYER	UNIT:	PITCO FBG24	-	-	-	-	-	1"	
PK-370	ONE COMPARTMENT SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-371	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-376	DROP IN WARMING WELL FOR BUTTER	UNIT:	HATCO HWBHI-11QTD	3/4"	-	-	-	-	-	
PK-390	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-391	HAND SINK FAUCET	UNIT	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-395	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-396	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-404	48" GRIDDLE	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-408	GAS FRYER	UNIT	FRYMASTER/DEAN FPPH255	-	-	-	-	-	1"	
PK-410	COMBINATION OVEN ELECTRIC	UNIT:	RATIONAL ICC 6-FULL E (LM200CE)	2"	-	-	3/4"	-	1/2"	
PK-416	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	†	_	_	_	





City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

INTERNATIONAL N 110 9TH AVE SW PUYALLUP, WA 98371

REVISIONS

10	DESCRIPTION	DATE
	CONFORMED	1/31/2025
$\overline{\Lambda}$	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
<u>2</u>	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024
RA	WN BY:	RPG
CHE	CKED BY:	BSM
PRO	JECT MANAGER:	BSM/RMC
EU	SE OF DOCUMENTS	

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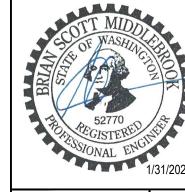
			KITCHEN FIXTURE S	CHEDUL	E CONT					
PK-417	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-427	5 WELL HOT FOOD TABLE	UNIT:	DELFIELD F14EI572	1/2"	-	-	-	-	-	
PK-439	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-440	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-446	BUILT IN DUMP SINK	UNIT:	PACIFIC STAINLESS BUILT IN DUMP SINK	2"	1-1/2"	-	-	-	-	
PK-447	DECK MOUNT FAUCET	UNIT:	T&S BRASS B-1122	-	-	1/2"	1/2"	-	-	
PK-453	BUILT IN HAND SINK	UNIT:	PACIFIC STAINLESS BUILT IN HAND SINK	2"	1-1/2"	-	-	-	-	
PK-454	DECK MOUNT FAUCET	UNIT:	T&S BRASS B-1141	-	-	1/2"	1/2"	-	-	
PK-471	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC	UNIT:	DELFIELD N8731-D	1/2"	-	-	-	-	-	
PK-475	GRIDDLE GAS COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-477	4 POT DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-486	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-487	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-489	EYE WASH FAUCET	UNIT:	T&S BRASS EW-7612LH	-	-	-	1/2"	-	-	
PK-507	4 POT DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-510	GRIDDLE GAS COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-526	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-527	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-529	HAND SINK FAUCET	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-530	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-531	ICE MACHINE HEAD	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-533	ICE MACHINE BIN	UNIT:	HOSHIZAKI B-1650SS	3/4"	-	-	-	-	-	
PK-534	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1PB-2D	2"	1-1/2"	-	-	-	-	
PK-535	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-548	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-549	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-555	ICE BIN WITH BOTTLE WELLS	UNIT:	GLASTENDER CBA-30L3-CP10	3/4"	-	-	-	-	-	1
PK-558	UNDERBAR MIXOLOGY SINK UNIT	UNIT:	GLASTENDER MFS-12	1-1/2"	-	3/8"	3/8"	-	-	
PK-559	HAND SINK	UNIT:	GLASTENDER DHSB-12	1-1/2"	-	3/8"	38"	-	-	
PK-560	DRAIN BOARD	UNIT:	GLASTENDER DBB-12	1-1/2"	-	-	-	-	-	
PK-561	GLASSWAHSER UNDERCOUNTER/UNDERBAR	UNIT:	JACKSON WWS DELTA 5-E	2"	-	1/2"	-	-	-	
PK-562	8 TAP BEER TOWER	UNIT:	GLASSTENDER BT-8-SS	1/2"	-	-	-	-	-	
PK-563	4 TAP BEER TOWER	UNIT:	GLASSTENDERBT-4-SS	1/2"	_	_	-	_	_	

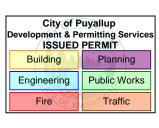
1. UNITS ON THIS SCHEDULE ARE PROVIDED AND INSTALLED BY OTHERS. THIS CONTRACTOR SHALL MAKE PLUMBING CONNECTIONS AS SHOWN ON THE DOCUMENTS. SEE KITCHEN DOCUMENTS FOR MORE INFORMATION.

2. TRANSISTION PIPE SIZE SHOWN ON PLAN TO STOP OR CONNECTION SIZE SHOWN ON SCHEDULE.

3. COORDINATE FINAL EQUIPMENT SIZES, SELECTIONS, AND REQUIREMENTS WITH ARCHITECT BEFORE INSTALLATION.

1.PROVIDE BFP-01 ON ALL ICE MACHINES, ESPRESSO AND SODA (CARBONATED) DISPENSERS.





ILLAGE INTERNATIONAL N 110 9TH AVE SW PUYALLUP, WA 98371

REVISIONS DATE 1/31/2025 NO DESCRIPTION CONFORMED PERMIT RESUB.
UNDERGROUND 9/11/2024 9/23/2024 REV 2
CONSTRUCTION
DOCS 9/25/2024 10/15/2024 RPG DRAWN BY: BSM CHECKED BY: BSM/RMC PROJECT MANAGER:

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GENERAL CONTRACT REQUIREMENTS

- MECHANICAL, PLUMBING, AND CONTROLS SCOPE SHALL FALL UNDER THE ULTIMATE RESPONSIBILITY OF ONE CONTRACTOR, WHO IS RESPONSIBLE FOR UNDERSTANDING ALL MECHANICAL AND PLUMBING DOCUMENTS, DISTRIBUTING CONTRACT DOCUMENTS TO ALL SUBCONTRACTORS, AND SHALL BE RESPONSIBLE FOR CONTRACT COMPLETION
- THE DRAWINGS ARE DIAGRAMMATIC. COORDINATE INSTALLATION WITH THE BUILDING, PROVIDE ALL NECESSARY OFFSETS, CHANGES IN DIRECTION, EXTENSIONS
- AND ASSOCIATED MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION. ***COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL STRUCTURAL, CIVIL, AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL PIPE OR DUCT OFFSETS WHERE REQUIRED TO COORDINATE INSTALLATION.***
- *** LOCATIONS AND SIZES OF (FLOOR, WALL, AND ROOF OPENINGS) SHALL BE COORDINATED WITH OTHER TRADES INVOLVED. INCLUDE THE FOLLOWING IN THE COST OF MECHANICAL WORK: CUTTING, CORING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS, FLOORS, AND ROOFS AS REQUIRED TO ACCOMMODATE WORK AS INDICATED IN THE MECHANICAL CONTRACT DOCUMENTS UNLESS SPECIFICALLY SHOWN ON ARCHITECTURAL DOCUMENTS.***
- MAINTAIN A SET OF PLANS ON SITE. RECORD ALL CHANGES TO ACTUAL ARRANGEMENTS ON THESE PLANS. PROVIDE THIS SET OF PLANS TO THE OWNER'S REPRESENTATIVE WHEN WORK IS COMPLETE.
- ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE
- REQUIREMENTS PROJECT SCHEDULING: COMPLY WITH OWNER'S REQUIREMENTS
- PARTS DATA ON ANY ITEM OF EQUIPMENT THAT HAS MOVING PARTS. PROVIDE THE FOLLOWING DOCUMENTS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. FINAL PAYMENT OF THE CONTRACT WILL BE CONTINGENT UPON

OPERATION AND MAINTENANCE MANUAL: PROVIDE COMPLETE OPERATIONS AND MAINTENANCE MANUAL IN HARD COVER. PROVIDE OPERATIONS, MAINTENANCE AND

- RECEIVING THESE DOCUMENTS RECORD (AS-BUILT) DRAWINGS
- MAINTENANCE AND OPERATING INSTRUCTIONS (3 SETS).
- EXTENDED WARRANTIES (OTHER THAN THE ONE-YEAR).
- BALANCING LOGS (AIR AND HYDRONIC SYSTEMS) (3 SETS).
- FINAL CERTIFICATES OF INSPECTION AND CODE COMPLIANCE. COMMISSIONING DOCUMENTATION PER WSEC
- 11. WARRANTY PROVISIONS: THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT AND SYSTEMS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIAL, EQUIPMENT, OR POOR WORKMANSHIP, WHICH MAY SHOW ITSELF DURING THIS WARRANTY PERIOD.

SEISMIC AND VIBRATION REQUIREMENTS

- HANGERS AND SEISMIC BRACING FOR THE MECHANICAL SYSTEMS SHALL BE DESIGNED AND PROVIDED BY THE MECHANICAL CONTRACTOR. REFER TO CONTRACTOR SHOP DRAWINGS FOR LOCATIONS OF EQUIPMENT AND HUNG MECHANICAL SYSTEMS. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE SUPPORT SYSTEMS AND DESIGN LOADS FOR HUNG MECHANICAL SYSTEMS WITH THE GENERAL CONTRACTOR AND OTHER TRADES THAT MAY BE IMPACTED.
 - PROVIDE ALL SEISMIC RESTRAINT REQUIRED BY THE AUTHORITY HAVING JURISDICTION AND THE APPLICABLE CODES.
- EMPLOY A LICENSED STRUCTURAL ENGINEER, IF NECESSARY, TO ACHIEVE COMPLIANCE.
- THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) SEISMIC RESTRAINT MANUAL GUIDELINES MAY BE USED FOR PIPING AND DUCTWORK. INSURE THE PROPER HAZARD LEVEL IS EMPLOYED FOR THE AREA OF INSTALLATION.
- VIBRATION CRITERIA: PROVIDE VIBRATION ISOLATION IN ACCORDANCE WITH THE AMERICAN SOCIETY OF HEATING. REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE): APPLICATIONS HANDBOOK.

BASIC MATERIALS AND METHODS

- ALL MATERIALS AND EQUIPMENT SHALL BE LISTED OR LABELED BY A RECOGNIZED AGENCY. UL, AGA, FM, CSA, ARI, ETC
- EQUIPMENT SHALL BE AS INDICATED ON THE DRAWING SCHEDULES. THE DRAWING SCHEDULES ESTABLISH THE LEVEL OF QUALITY. SUBSTITUTIONS WILL BE CONSIDERED, SUBMIT TECHNICAL DATA (PERFORMANCE AND CONSTRUCTION) TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. ALLOW TWO WEEKS FOR TURN-AROUND.
- MECHANICAL SYSTEM PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH THE BUILDING CODE IN FORCE IN THE AUTHORITY HAVING JURISDICTION FOR THIS PROJECT. THIS INCLUDES PIPING, DUCTWORK, SUPPORTS, CONDUIT, AND ANY OTHER SYSTEM AND APPURTENANCE PROVIDED AS PART OF THE MECHANICAL WORK OF THIS CONTRACT. IN ADDITION, ALL THROUGH-PENETRATION SEALING METHODOLOGIES SHALL BE LISTED IN THE UNDERWRITER'S LABORATORIES (UL) FIRE RESISTANCE DIRECTORY, ISSUE CURRENT AT TIME OF BID.
- MOTORS SHALL COMPLY WITH THE WSEC.
- ELECTRICAL INSTALLATION SHALL COMPLY WITH THE NEC. PROTECT OF STORED MATERIALS. REPLACE DAMAGED MATERIALS PRIOR TO
- INSTALLATION PROVIDE WATER-TIGHT SEAL FOR OPENINGS TO THE BUILDING THROUGH WHICH PIPE
- PROVIDE AND INSTALL PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY (MSS) STANDARDS, SPECIFICALLY STANDARD SP-69, "PIPE HANGERS AND SUPPORTS -SELECTION AND APPLICATION" AND STANDARD SP-58, "PIPE HANGERS AND SUPPORTS
- ACCORDANCE WITH THE UPC OR IMC. TESTING: ALL WORK UNDER THIS CONTRACT SHALL BE THOROUGHLY AND SYSTEMATICALLY TESTED, BOTH DURING CONSTRUCTION AND AFTER COMPLETION. PIPE TESTING SHALL BE EITHER AS SPECIFIED IN THE APPROPRIATE SPECIFICATION SECTION, OR AS SPECIFIED IN THE APPLICABLE PLUMBING OR MECHANICAL CODE. DUCTWORK SHALL BE TESTED AS PART OF THE AIR BALANCING PROCESS. NOTIFY THE OWNER'S REPRESENTATIVE 48-HOURS IN ADVANCE OF ALL TESTS. TESTS SHALL

- MATERIALS, DESIGN AND MANUFACTURE". PROVIDE PIPE SUPPORT SPACING IN

- BE MAINTAINED UNTIL APPROVED. 10. START-UP. BALANCING AND COMMISSIONING.
- EQUIPMENT STARTUP SHALL BE PERFORMED BY QUALIFIED PERSONNEL. THE TECHNICAL SPECIFICATION SECTIONS WILL DETAIL OTHER SPECIAL REQUIREMENTS, IF ANY. PROVIDE A STATEMENT OF THE STARTUP TECHNICIAN'S QUALIFICATIONS IF REQUESTED BY THE OWNER'S REPRESENTATIVE OR ELSEWHERE SPECIFIED.
- BALANCE ALL AIR AND WATER SYSTEMS. BALANCE IN ACCORDANCE WITH EITHER NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR AMERICAN AIR BALANCE COUNCIL (AABC) CRITERIA.
- PROVIDE COMMISSIONING IN ACCORDANCE WITH THE WSEC, UNLESS ENHANCED COMMISSIONING IS REQUIRED. PROVIDE DOCUMENTATION OF COMMISSIONING

COPPER PIPING

- COPPER PIPING SHALL BE USED FOR DOMESTIC HOT, COLD AND BLOWER COIL CONDENSATE. MATERIALS FOR ABOVE GROUND COPPER PIPE, FITTINGS AND ACCESSORIES. ASTM
- B88, TYPE "L".
- PROVIDE LEAD-FREE SOLDER JOINTS FOR PIPING 2" AND SMALLER
- PROVIDE ROLLED GROVE MECHANICAL JOINTS FOR PIPING 2-1/2" AND LARGER. MATERIAL FOR BELOW GROUND COPPER PIPE SHALL BE ASTM B42, HARD DRAWN, TYPE K. FITTINGS SHALL BE ASME B16.18 CAST COPPER ALLOY OR ASME B16.22 WROUGHT COPPER OR BRONZE. JOINTS SHALL BE BRAZED UTILIZING AWS A5.8M/A5.8 BCuP COPPER SILVER BRAZE.

CROSS-LINKED POLYETHYLENE PIPE

INTERIOR SERVICE: CONFORM TO ASTM F877, "CROSSLINKED POLYETHYLENE (PEX) PLASTIC HOT- AND COLD- WATER DISTRIBUTION SYSTEMS."

PLASTIC PIPE, DWV & SEWER

PVC PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS SHALL BE PER IAPMO INSTALLATION STANDARD (IS) 09-03, "PVC BUILDING DRAIN, WASTE, AND VENT PIPE AND FITTINGS."

NATURAL GAS PIPING

ABOVE GROUND NATURAL GAS SYSTEM PIPING, VALVES, FITTINGS, AND APPURTENANCES: CARBON STEEL PER THE UPC AND IFGC.

PIPING SYSTEM SPECIALTIES

- SPECIALITY PIPE SYSTEMS SHALL BE CONSTRUCTED OF MATERIALS THAT ARE COMPATIBLE WITH THE TYPE OF PIPING MATERIAL AND FLUIDS IN THE SYSTEM. THEY SHALL BE RATED FOR THE TEMPERATURES AND PRESSURES OF THE SYSTEMS IN WHICH THE VALVES ARE INSTALLED
- PROVIDE SENSORS WHERE INDICATED ON THE PLANS.
- PROVIDE DIELECTRIC BREAKS BETWEEN DISSIMILAR METALS.
- TRAP PRIMERS BRASS CONSTRUCTION WITH OPERATING RANGE FROM 20-80 PSI. SUITABLE
- FOR 1-4 LOW USE FIXTURES. APPROVED MANUFACTURERS: PPP

VALVES

- VALVES SHALL BE CONSTRUCTED OF MATERIALS THAT ARE COMPATIBLE WITH THE TYPE OF PIPING MATERIAL AND FLUIDS IN THE SYSTEM. VALVES SHALL BE RATED FOR THE TEMPERATURES AND PRESSURES OF THE SYSTEMS IN WHICH THE VALVES ARE INSTALLED
- LOCATE AND ORIENT VALVES TO PERMIT PROPER OPERATION AND ACCESS FOR MAINTENANCE OF PACKING, SEAT, AND DISK. GENERALLY, LOCATE VALVES IN OVERHEAD PIPING IN HORIZONTAL POSITION. PROVIDE A UNION ADJACENT TO ONE END OF EACH THREADED VALVE.

PIPE TESTING

- DOMESTIC PLUMBING PIPING SHALL BE TESTED AT A PRESSURE NOT LESS THAN THE DESIGN PRESSURE FOR A PERIOD OF NOT LESS THAN 15 MINUTES. TESTS SHALL BE PER UPC CHAPTER 6. TEST GAUGES SHALL BE PER UPC 318.
- WASTE AND VENT PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT HEAD OF WATER FOR A PERIOD OF NOT LESS THAN 15 MINUTES. TESTS SHALL BE PER UPC CHAPTER. 7. TEST GAUGES SHALL BE PER UPC 318.
- GAS PIPING SHALL BE TESTED USING AIR, NITROGEN, OR CARBON DIOXIDE. TEST PRESSURE SHALL BE NOT LESS THAT 1.5 TIMES THE PROPOSED MAXIMUM WORKING PRESSURE, BUT NOT THAN 3 PSI IRRESPECTIVE OF THE DESIGN PRESSURE. TEST LENGTH SHALL BE NOT LESS THAN ONE HALF HOUR FOR EVERY 500 CUBIC FEET OF PIPE VOLUME OR FRACTION THEREOF. ALL GAS PIPING TESTING SHALL BE IN
- ACCORDANCE WITH IFGC 406. PIPING IS CONSIDERED "PASSED" IF THE PRESSURE REMAINS UNCHANGED FOR THE DURATIONS LISTED ABOVE.

WATER PIPE INSULATION

- PRE-FORMED FIBERGLASS INFORMATION FOR PIPE, VALVES, FITTINGS, EQUIPMENT AND ACCESSORIES.
- PROVIDE PER THE WSEC AND THE MIDWEST INSULATION CONTRACTORS ASSOCIATION (MICA) STANDARDS. INSULATION THICKNESSES SHALL COMPLY WITH WSEC.
- PROVIDE INSULATION ON THE FIRST 10' OF OVERFLOW PIPING.

HEAT TRACE CABLE

- PROVIDE FOR EXTERIOR PIPING SYSTEMS NOT PROVIDED WITH GLYCOL.
- THE SELF-REGULATING HEATING CABLE SHALL CONSIST OF TWO 16A W.G. NICKEL-COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF-REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATING CABLE TO BE CUT TO LENGTH IN
- THE HEATING CABLE SHALL BE COVERED BY A RADIATION-CROSS LINKED, MODIFIED POLYOLEFIN DIELECTRIC JACKET.
- HEATING CABLE CIRCUIT SHALL BE PROTECTED BY A GROUND-FAULT DEVICE FOR EQUIPMENT PROTECTION. THIS REQUIREMENT IS IN ACCORDANCE WITH SECTION 427-22 OF THE NEC
- PROVIDE 5 WATT/ LF CABLE FOR PIPING UNDER 3" IN DIAMETER.
- INSTALL PER MANUFACTURER'S RECOMMENDATION.

PLUMBING - GENERAL

- PROVIDE PLUMBING PER THE UPC AND THE REQUIREMENTS OF THE AUTHORITY
- HAVING JURISDICTION. PLUMBING FIXTURES AND EQUIPMENT SHALL BE AS INDICATED ON THE DRAWING
- SCHEDULES. ACCESS PANELS: PROVIDE FOR MAINTENANCE OF VALVES, TRAP PRIMERS, WATER
- HAMMER ARRESTORS, AND OTHER ITEMS REQUIRING ACCESS WHEN OBSTRUCTED BY WALLS, AND HARD LID CEILING.
- LOCATE VALVES, CONTROLS, AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE
- INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF **EQUIPMENT THAT REQUIRES MAINTENANCE**
- PROVIDE ACCESS DOORS FOR EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE
 - PROVIDE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING.
- PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS.

PLUMBING - FLOOR DRAINS

- DRAINS SHALL BE JAY R. SMITH, SIOUX CHIEF, ZURN, WADE, OR APPROVED EQUAL. FLOOR DRAINS: DUCO CAST IRON BODY WITH FLASHING COLLAR, SQUARE POLISHED NICKEL BRONZE ADJUSTABLE STRAINER HEAD AND GRATE, TRAP PRIMER CONNECTION AND VANDAL PROOF SCREWS. SIZE AS PER PLANS
- FLOOR SINKS: STAINLESS STEEL FLANGED RECEPTOR FABRICATED OF 304 STAINLESS STEEL WITH 12" HALF GRATE STAINLESS STEEL TOP, SEDIMENT BUCKET AND FLASHING CLAMP. SIZES AS SHOWN ON PLANS.
- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PLUMBING - CLEANOUTS

- CLEANOUTS SHALL BE JAY R. SMITH, SIOUX CHIEF, ZURN, WADE OR APPROVED
- WALL CLEANOUT, DUCO CAST IRON CAULK FERRULE WITH CAST IRON COUNTERSUNK CLOSURE PLUG. PROVIDE WITH STAINLESS STEEL COVER AND SCREW.
- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PLUMBING FIXTURE AND TRIM

- FIXTURES ARE SPECIFIED IN THE PLUMBING FIXTURE SCHEDULE AND ARE THE BASIS OF THIS DESIGN. SIMILAR FIXTURES OF EQUAL QUALITY CAN BE SUBMITTED UPON.
- PROVIDE STOP VALVES, WATER SUPPLY, TRAPS, TRAP ARMS, INSULATION, AND WASTE AS APPLICABLE AND INDICATED ON DRAWINGS.
- PROVIDE CARRIER AND/OR MOUNTING BRACKETS.
- PROVIDE ESCUTCHEON PLATES FOR ALL LINES THROUGH WALL OR FLOOR, UNLESS PLANS INDICTATE A DIFFERENT PENETRATION.
- INSTALL FIXTURE PER MANUFACTURER'S RECOMMENDATIONS.

DOMESTIC WATER HEATERS

- TANK SHALL BE RATED AT 1.5 TIMES THE WORKING PRESSURE. WATER HEATER SHALL COMPLY WITH STATE AND LOCAL ENERGY CODES.
- PROVIDE HOUSEKEEPING PAD FOR TANK.
- PROVIDE ASME RATED PRESSURE RELIEF VALVE.
- INSTALL WATER HEATERS PER THE UPC AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE CATCHPAN. DRAIN TO NEARBY SERVICE SINK.

CIRCULATION PUMPS

BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.

INSTALLATION. PUMP SHALL BE NSF 372 CERTIFIED.

- MATERIALS SHALL BE BRONZE OR STAINLESS STEEL PUMP MUST BE CAPABLE OF BEING SERVICES WITHOUT DISTURBING PIPING CONNECTIONS. PUMP SHALL BE WATER LUBRICATED FOR HORIZONTAL OR VERTICAL
- APPROVED MANUFACTURERS
- BELL AND GOSSETT
- ARMSTRONG GRUNDFOS

EXPANSION TANKS

- BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.
- WELDED STEEL/STAINLESS STEEL CONSTRUCTION, TESTED AND STAMPED IN ACCORDANCE WITH AMSE BPVC-VIII-1. RATED FOR WORKING PRESSURE OF 125PSI AT 200 DEGREES FAHRENHEIT, WITH FLEXIBLE BUTYL DIAPHRAGM SEALED INTO TANK. PRECHARGE TO 55 PSIG AND ADJUST AS INDICATED ON PLAN.
- PROVIDED WITH ANTIMICROBIAL LINER.
- APPROVED MANUFACTURERS
- A. AMTROL

ELEVATOR SUMP PUMPS

- BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.
- PREPACKAGED WITH CONTROLS, ALARMS, SUMP BASIN, PUMPS, AND INTERNAL PIPING INTERNAL TO BASIN. FIELD LOCATE CONTROL PANEL AND REMOTE ALARM.
- CASING SHALL BE CONSTRUCTED OF CLASS 25 CAST IRON. MOTOR HOUSING SHALL BE OIL FILLED FOR HEAT DISSIPATION. ALL MATING PARTS SHALL BE MACHINED AND SEALED WITH BUNA-N O- RINGS. ALL FASTENERS EXPOSED TO LIQUID SHALL BE
- STAINLESS STEEL. IMPELLER SHALL BE VORTEX STYLE MADE OF POLYMER. SUPPLIED WITH A 50' MULTI CONDUCTOR POWER CORD.
- CONTROLS SHALL BE HOUSED IN A NEMA 4X RATED ENCLOSURE. OPERATOR
- INTERFACE SHALL BE TOUCH SCREEN. REVIEW SCHEDULES FOR OIL DETECTION OPTIONS.
 - APPROVED MANUFACTURERS A. LIBERTY

BACKFLOW PREVENTERS

- TYPE AND CONFIGURATION SHALL CONFORM TO LOCAL AHJ REQUIREMENTS.
- PROVIDE A LETTER OF CERTIFICATION TO OWNER. REDUCED PRESSURE BACKFLOW PREVENTERS
- ASSE 1013, CAST BRONZE BODY AND STAINLESS STEEL SPRINGS. TWO INDEPENDENTLY OPERATING, SPRING LOADED CHECK VALVES, DIAPHRAGM TYPE DIFFERENTIAL PRESSURE RELIEF VALVE LOCATED BETWEEN CHECK VALVES, THIRD CHECK VALVE THAT OPENS UNDER BACKPRESSURE IN CASE OF DIAPHRAGM FAILURE.
- POTABLE WATER SYSTEMS SHALL BE NFS 61 CERTIFIED LEAD FREE.
- APPROVED MANUFACTURERS A. WATTS

THERMOSTATIC MIXING VALVE

- BRONZE BODY CONSTRUCTION WITH CORROSION RESISTANT COMPONENTS. VALVE SHALL BE EQUIPPED WITH CHECKSTOPS. PROVIDE THERMOSTATS, GAUGES, AND STRAINERS AS INDICATED ON PLANS. TMV SHALL CONTROL THE TEMPERATURE TO WITHIN 3 DEGREES FAHRENHEIT FROM THE LOW FLOW TO THE MAXIMUM FLOW RATE
- APPROVED MANUFACTURERS: A. WATTS

AIR TO WATER HEAT PUMP

- HEAT PUMP SHALL HAVE A SCROLL COMPRESSOR WITH ADDITIONAL CONTROL FOR MONITORING OPERATION OF COMPRESSOR. CONTROL SHALL PROVIDE DIAGNOSIS OF THE COMPRESSOR WITH INDICATION LIGHTS FOR STATUS AND CODES.
- HEAT PUMP SHALL BE FACTORY CHARGED WITH 513A REFRIGERANT, ECM VARIABLE SPEED CIRCULATOR PUMP, AND DOUBLE WALL STAINLESS STEEL CONDENSER FOR
- POTABLE WATER APPLICATIONS. HEAT PUMP SHALL ADJUST THE EVAPORATOR FAN SPEED DEPENDING ON AMBIENT
- TEMPERATURE TO OPTIMIZE THE PERFORMANCE OF THE HEAT PUMP. HEAT PUMP REFRIGERANT CIRCUIT SHALL CONTAIN AN ELECTRONIC EXPANSION VALVE, RECEIVER, ACCUMULATOR, FILTER DRIER AND SERVICE PORTS FOR
- REFRIGERANT GAUGES. HEAT PUMP SHALL BE CERTIFIED AND LISTED BY UL TO UL 60335-2-40 STANDARD.
- CERTIFIED FOR BOTH INDOOR AND OUTDOOR INSTALLATIONS HEAT PUMP SHALL BE CONSTRUCTED WITH HEAVY GAUGE SHEET METAL ASSEMBLY AND PAINTED ON BOTH SIDES. MANUFACTURER SHALL PROVIDE RESULTS AS OF 9.000-HOUR SALT SPRAY TEST
- HEAT PUMP CONTROL SHALL PROVIDE FOR "CASCADE" TO SEQUENCE AND ROTATE WHILE MAINTAINING OPERATION OF UP TO SIXTY-FOUR HEAT PUMP MODULES.
- HEAT PUMP SHALL BE EQUIPPED WITH TERMINAL STRIPS FOR ELECTRICAL CONNECTION. A HIGH VOLTAGE TERMINAL STRIP SHALL BE PROVIDED FOR SUPPLY VOLTAGE. SUPPLY VOLTAGE SHALL BE 40-480V/3PH/60HZ. OPTIONAL FIELD INSTALLED VOLTAGE TRANSFORMER SHALL BE OFFERED BY MANUFACTURER FOR ADDITIONAL VOLTAGE THAT SHALL BE REQUIRED.

SEQUENCE OF OPERATIONS

- GENERAL
 - HOT WATER SETPOINT SHALL BE 140DF (ADJUSTABLE). ARMSTRONG
- PUMP DELAY SHALL BE SET TO 5 MINUTES (ADJUSTABLE).

AWHP SEQUENCE

- UPON A CALL FOE HEAT, THE CONTROL TURNS ON THE INTERNAL PUMP. DAMPERS SHALL OPEN VIA 24V CONTROLS CONNECTION. DAMPERS SHALL FAIL
- OPEN. SEE MECHANICAL. INTERNAL CONTROLS CONFIRMS THAT THE REFRIGERANT HIGH AND LOW PRESSURE
- SWITCHES, BLOCKED DRAIN SWITCH, LIMITS, AND CONTACTS CLOSE
- INTERNAL CONTROLS CONFIRMS THE FAN COMES UP TO THE DESIRED SPEED. COMPRESSOR INITIALS, AND WATER VALVES OPEN.
- ONCE THE DHW CALL FOR HEAT IS SATISFIED, THE INTERNAL CONTROL WILL TURN OFF THE COMPRESSOR. ANY PUMPS THAT ARE RUNNING WILL BEGIN THEIR RESPECTIVE PUMP DELAY CYCLES.
- AT THE END OF THE PUMP CYCLE, THE LOUVER RELAY CONTACTS WILL DE-ENERGIZE.
- AT THE END OF THE PUMP DELAY CYCLE(S), THE PUMP(S) WILL BE TURNED OFF.

GAS WATER HEATER

UNIT OPERATES ON INTERNAL CONTROLS TO MAINTAIN HOT WATER TEMP SETPOINT.

CIRCULATION PUMP

CIRCULATION PUMP SPEED SHALL MODULATE SPEED TO MAINTAIN PRESSURE SETPOINT. INITIAL SETPOINT SHALL BE DETERMINED BY BALANCER IN FIELD.



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INT 110 § PUY, REVISIONS

DESCRIPTION CONFORMED /31/2025 PERMIT RESUB. 9/11/2024 9/23/2024 2 REV 2 9/25/2024 10/15/2024 RPG DRAWN BY: BSM CHECKED BY: BSM/RMC PROJECT MANAGER:

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